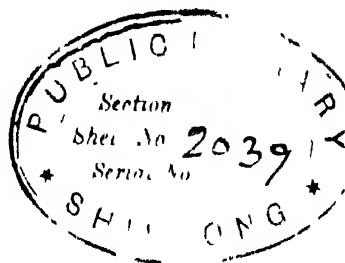


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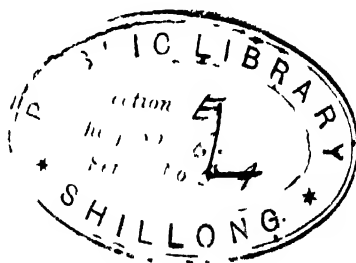
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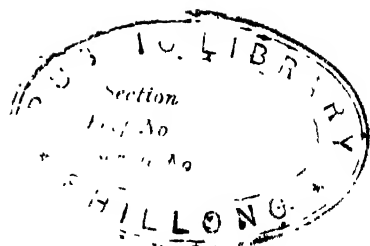
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## P R E F A C E.

In 1894 I began the preparatory studies for an account of the later Indian Moghul system of government and administration in all its branches, being impelled by the belief that some information of the kind was a necessary introduction to a History of that period, which I had previously planned and commenced. Before I had done more than sketch out my first part, which deals with the Sovereign, the Court Ceremonial, and the elaborate system of Entitlement, I noticed the issue of a book on a part of my subject by Dr. Paul Horn<sup>1</sup>. The perusal of this excellent work diverted my attention to a later section of my proposed Introduction, the subject of the Army and Army Organization; and in this way I have been led to write this portion before any of the others. Except incidentally, my paper is neither a translation nor a review of Dr. Horn's essay; and though indebted to him, as acknowledged from time to time, my study covers, in the main, quite different ground, forming a complement to what he has done, and, as I think, carrying the subject a good deal farther in several directions. Dr. Horn seems to have read chiefly the authorities for the period before Aurangzeb 'Ālamgīr; while my reading has been confined in great measure to the reigns of Aurangzeb's successors in the

<sup>1</sup> "Das Heer- und Kriegswesen der Gross-Moghuls", by Dr. Paul Horn, Privat-Dozent an der Universität Strassburg, 8vo, pp. 160. (E. J. Brill: Leiden, 1894.)

period 1707—1803. The sources upon which we draw are thus almost entirely independent of each other; and I hope that my contribution to this rather obscure corner of Indian history may not be thought inferior in interest to that of my predecessor. The first seven chapters have already appeared in the Journal of the Royal Asiatic Society for July 1896.

## CHAPTER I.

### COMMISSIONED RANK AND MODE OF RECRUITING.

Few soldiers were entertained directly by the emperor himself, and for the most part the men entered first the service of some chief or leader. These chiefs were ranked according to the number of men that they had raised or were expected to raise. In this way originated the system of *manṣab*, first introduced by Akbar (*Āīn*, i, 237). This mode of recruiting the army through the officers, renders it necessary to begin by a statement of the manner in which the officers themselves were appointed and graded.

*Manṣab* was not a term confined solely to the military service; every man in State employ above the position of a common soldier or messenger, whatever the nature of his duties, civil or military, obtained a *manṣab*. In fact, there were for all grades, except the very lowest, only two modes of obtaining support from State funds: a man must either enter its active service, as the holder of a *manṣab*, or he must petition for a *madad-i-mu'āsh* (literally, "help to live"), on the ground of being a student of the holy books, an attendant on a mosque (*mutawallī* or *khādim*), a man of learning and religious life (*darvesh*), a local judge (*qāṣī*), or an expounder of the Mahomedan law (*muftī*).

The word *manṣab* is literally (*Dastūr-ul-Inshā*, p. 238) "the place where anything is put or erected" (*naṣb kardan*, to place, fix, appoint); and then, as a secondary meaning, the state or condition of holding a place, dignity, or office. It seems to have been in use in Central Asia before the Moghuls descended into Hindūstān; and Ross translates

it by the vaguer term "privileges". — *Tārīkh-i-Rashīdī*, 103. This word *manṣab* I represent by the word *rank*, as its object was to settle precedence and fix gradation of pay; it did not necessarily imply the exercise of any particular office, and meant nothing beyond the fact that the holder was in the employment of the State, and bound in return to yield certain services when called upon.

The highest *manṣab* that could be held by a subject, not of the royal house, was that of commander of 7000 men, though in the later and more degenerate times we find a few instances of promotion to 8000 or even 9000. The *manṣab* of a prince ranged from 7000 up to 50,000, and even higher (*Mirāt-ul-Istīlāh*, fol. 35). In the *Āyn-i-Akbarī* (Blochmann, 248, 249) sixty-six grades are stated, beginning at commanders of 10,000, and ending at those set over ten men. Even at that earlier period there seem to have been only thirty-three of these grades in actual existence (Blochmann, 238). All the later authorities agree in holding that the lowest officer's *manṣab* was that of twenty men; and these writers record, I find, no more than twenty-seven grades, beginning with that of 7000 and ending with that of twenty. In the earlier days of the dynasty, rank was granted with a niggard hand. In Akbar's time the highest rank was for long that of 5000, and it was only towards the end of his reign that a few men were promoted to 7000, while many officers exercised important commands although holding a comparatively low *manṣab*. The great accession of territory in the Dakhin and the incessant wars connected with these acquisitions may account in part for the increase in the number and amount of *manṣabs* granted by Shāhjahān and 'Ālamgīr. But the relative value of rank was thereby much depreciated; and the author of the *Ma'āsir-ul-Umarā* (i, 8), while considering Akbar's officers of 500 rank of sufficient importance to deserve separate biographies, contents himself in the later reigns with going no lower than those of 7000 or 5000, men below those ranks



being too numerous and too insignificant to call for detailed mention.

The steps of promotion altered as the officer rose in grade. The usual gradation was as follows (*Mirāt*, B.M. 1813, fol. 35; *Dastūr-ut-Aml*, B.M. 1641, fol. 44b): —

From	20 to 100	each rise was by	20
„	100 to 400	„ „	50
„	400 to 1000	„ „	100
„	1000 to 4000	„ „	500
„	4000 to 7000	„ „	1000

There is a slight discrepancy between this table and the facts as we find them in practice. It ought to be amended thus: —

From	20 to 60	a man rose by	10	each time
„	60 to 100	„ „	20	„

Otherwise we should exclude the rank of 50, which was common enough. Again, we find in many tables no ranks of 250 or 350, although both of these are required to accord with the above scheme of promotion.

We also find mention in the historians of ranks which do not appear in the above scheme of grades. For instance, in Dānishmand Khān's *Bahādur Shāhnāmah* (fol. 41b, 56a) we find men appointed to 1200 and 2900, grades which do not fit in with the scheme given above, nor do these grades appear in the pay-table, copied from the official manuals, which we give a little further on.

As an additional distinction, it was the custom to tack on to a *manṣab* a number of extra horsemen. To distinguish between the two kinds of rank, the original *manṣab*, which governed the personal allowances, was known as the *zāt* rank (*zāt* = body, person, self), and the additional men were designated by the word *suwār* (= horseman). Thus a man would be styled "2500 *zāt*, 1000 *suwār*." It is said (*Mirāt*, fol. 35) that men below 500 never had *suwār*

added to their rank; but this is not borne out by what we find in actual practice. For instance, Mirzā Muḥammad (*Tazkirah*, I.O.L. N<sup>o</sup>. 50, fol. 96a) was in Rabī II, 1119 H., made 400, 50 horse, and his younger brother 300, 30 horse. There are also instances in Dānishmand Khān of 150, 50 horse; 300, 10 horse; 300, 20 horse; 300, 80 horse; 400, 40 horse; and so on. In fact, unless this had been the case, it would be impossible to divide the ranks below 500 into first, second, and third grade, as was actually done. This division into grades we now proceed to describe.

On the distribution of rank into *zāt* and *suwār* was founded a classification into first, second, and third class *manṣabs*, by which the scale of *zāt* pay was reduced proportionately. From this classification were exempted officers above 5000 *zāt*; these were all of one class. From 5000 downwards, an officer was First Class, if his rank in *zāt* and *suwār* were equal; Second Class, if his *suwār* was half his *zāt* rank; Third Class, if the *suwār* were less than half the *zāt*, or there were no *suwār* at all (*Dastūr-ul-Inshā*, 222). I think that here Blochmann (*Āfn*, i, 238, lines 5 and foll.) obscures the subject by using "contingent" as the equivalent of *suwār*, instead of leaving the untranslated original word to express a technical meaning.

Pay was reckoned in a money of account called a *dām*, of which forty went to the rupee. There were also coins called *dām*, but the *dāms* of account, bearing a fixed ratio to the rupee, must be distinguished as a different thing from the coin, though called by the same name. Here Dr. Horn, 16, is of opinion that the reckoning was made in such a small unit as the  $\frac{1}{4}$  of a rupee, less to make a grand show with big figures than because the value of the rupee varied. On this head I am of exactly the opposite opinion, for I think that the principal, if not the only object, was to swell the totals and make the pay sound bigger than it really was. That spirit runs through everything done in the East, at any rate in the Indian portion of it, as could

easily be shown were it worth while to labour the point further. As for the second reason, I have considered it as well as I am able, not being a currency expert; and it seems to me that with a fixed ratio between the two coins, it was a matter of indifference to the receiver of pay whether the amount was stated in the one or in the other unit of value. The two units being tied together by the fixed ratio, and the disbursements being in fact made (as we know) in rupees, the payee suffered, or did not suffer, equally by either mode of calculation.

In the following table, which shows all the *manṣabs* with their pay according to class, I have reduced the *dām* to rupees, as being simpler and more readily intelligible. In the present day, this reckoning by *dāms* has quite disappeared. When reading this table of pay, which shows the sanctioned allowances for a year of twelve months, it must be remembered that few of the officers received the whole twelve-months' pay, the number of month's pay sanctioned per annum ranging from four to twelve. Officers were also supposed to keep up an establishment of elephants and draught cattle. Apparently they were also liable to pay a fixed quota of their own allowances towards the expenses of the Emperor's elephants and cattle, an item known as *khūrāk-i-dawābb*, feed of four-footed animals. There were other petty deductions.

TABLE OF *MANṢAB-I-ZAT* WITH YEARLY PAY IN RUPEES.

	RANK ( <i>Manṣab-i-zāt</i> ).	YEARLY PAY IN RUPEES.		
		First Class.	Second Class.	Third Class.
1	7000	350,000	—	—
2	6000	300,000	—	—
3	5000	250,000	242,500	235,000
4	4500	225,000	217,500	210,000
5	4000	200,000	192,500	185,000
6	3500	175,000	167,500	160,000
7	3000	150,000	142,500	135,000
8	2500	125,000	117,500	110,000
9	2000	100,000	92,500	85,000
10	1500	75,000	67,500	60,000
11	1000	50,000	47,500	45,000
12	900	37,500	36,250	35,000
13	800	31,250	30,000	28,750
14	700	27,500	26,250	25,000
15	600	23,750	22,500	21,250
16	500	20,000	18,750	17,500
17	400	12,500	12,000	11,500
18	300	10,000	9500	9000
19	200	7500	7000	6500
20	150	6250	5750	5250
21	100	5000	4500	4000
22	80	3500	3250	3000
23	60	2500	2375	2150
24	50	2125	2000	1875
25	40	1750	1625	1500
26	30	1375	1250	1125
27	20	1000	875	750

(*Dastūr-ul-ʿAml*, B.M. N<sup>o</sup>. 1641, fol. 44*b*, *id.* B.M. N<sup>o</sup>. 1690, fol. 173*b*, *Dastūr-ul-Inshā*, p. 234.) 'The rates of pay in Akbar's reign, as given in the last column of Blochmann's table (*Āṭn*, i, 248), were much higher than the above, which refers to 'Ālamgīr's time and later. It will be noticed that the difference of pay between first, second, and third class is as follows:—

From	20 to 60	5,000	<i>Dām</i> , or Rs.	125
For	80	10,000	" "	250
From	100 to 400	20,000	" "	500
For	1000	100,000	" "	2500
From	1500 to 5000	300,000	" "	7500

(B.M. 6599, fol. 144*b*).

In addition to the simple division by *manṣab* alone, there was also a grouping of officers into three classes. From 20 to 400 they were merely "officers with rank" (*manṣabdār*); from 500 to 2500 they were Nobles—Blochmann, i, 535 (*Amir*, pl. *Umarā*, origin of our form "Omrah"); from 3000 to 7000 they were Great Nobles (*Amīr-i-ʿAzam*, pl. *ʿUzzām*, *Umarā-i-kibār* (Blochmann, i, 529, note), or Pillars (*ʿUmdah*). All *manṣabdārs* were kept on one or other of two lists: (1) *Hāzir-i-rikāb*, present at Court; (2) *Tāʾināt*, on duty elsewhere.

*Suwār Rank*. — The grant of *suwār* in addition to *zāt* rank was an honour. Dr. Paul Horn, 15, supposes, however, that these horsemen were paid out of the *zāt* allowances. In that case a man who had no *suwār* would be better paid than another who was honoured with the addition of *suwār* to his *zāt* rank. Naturally Dr. Horn, 16, holds that this "eigentlich nicht recht glaublich ist." He is quite right in his conjecture. The explanation is, that the table of pay in Blochmann, i, 248, and that given above, are exclusively for the *zāt* rank, from which money the officer had to maintain his transport, his household, and some horsemen. For the *suwār* rank there was a separate table, pay for these horsemen being disbursed under the name of the *Tabīnān*. As Orme says ("Hist. Frag.," 418), the officer raising the troops was responsible for the behaviour of his men; he therefore brought men of his own family or such as he could depend on. Another rule was, according to the *Mirāt-i-Aḥmadī*, ii, 118, that the *Tabīnān*, if horsemen, must be one third Mughals, one third Afghāns, and one third Rājputs; if infantry, two thirds archers, and one-third matchlockmen.

*Tabīnān*. — Blochmann, i, 232, note 1, who, apparently, translates this word as well as *suwār* by "contingent," derives it from the Arabic *tābīn*, one who follows.<sup>1</sup> The

<sup>1</sup> Steingass, 272, تَابِينَ, A, following in the steps of another; but Pavet de Courteille, Dict. Turc. Oriental, 194, claims it as a Chaghatāi word, with the meanings of "a troop of 50 men, the body-guard, the pages."

books (B.M. 1641, fol. 46b, B.M. 6599, 144b and 148b) give a long table setting forth their pay in *dāms*, beginning with that for five horsemen and ending with that for 40,000, but as the basis for calculation remains the same throughout, it is sufficient here to work out the pay for one horseman. For five horsemen, then 40,000 *dāms* a year were allowed. That would be 8000 *dāms* for one man; and this sum in *dāms* yields Rs. 200 a year (at the fixed rate of 40 *dāms* to the rupee), or Rs. 16 10a. 8p. per man per mensem. Bernier, 217, states the rate as somewhat higher — “he that keeps one horse shall not receive less than 25 rupees a month.” For this sum, of course, the man provided his own horse and armour, and paid for his own and his horse’s keep. One *Dastūr-ul-‘Aml*, B.M. 6599, fol. 144b, tells us that the number of horses to men among the troopers (*tābinān-i-barādari*) was according to the rule of *dah-bist* (lit. “ten-twenty”), meaning apparently that the total number of horses was double that of the number of men. The scale was as follows: —

3 three-horsed men	= 9 horses
4 two-horsed men	= 8 horses
3 one-horsed men	= 3 horses
—	—
10 men	20 horses

That is, with 1000 men there would be 2000 horses. The pay of the men with the extra horses was higher, but not in proportion. Thus, a one-horsed man received 8000 D. or Rs. 200 a year (Rs. 16 10a. 8p. per mensem), while the two- or three-horsed man got 11,000 D. or Rs. 275 a year (Rs. 22 14a. 8p. per mensem). In some places we find other rates of pay recorded. For instance, Bahādur Shāh enlisted *Aḥadis*, men a little superior to common soldiers, at Rs. 40 a month (Dānishmand Khān, second Šafar of the second year, i. e. 1120 H. = 22<sup>nd</sup> April 1708). A century later, as Fitzclarence tells us, “Journal,” 73, 142, the rate was Rs. 40 a month in the Dakhn, and R. 22 in Hindūstān. Service

in the cavalry was socially an honourable profession; thus a common trooper was looked on as being, to some extent, a gentleman, and such men, even when illiterate, often rose to the highest positions.

The pay of the *Tabinān* was drawn by the *manṣabdar*, who was entitled to retain 5 per cent. of their pay for himself (*Āīn*, i, 265). Pay was not always allowed for a whole year, often only for six, five, or four months. This fact renders it impossible to calculate the actual expenditure, for, although we generally can find out whether a *manṣabdar* was first, second, or third class, we rarely know for what number of months in the year his pay was sanctioned.

*Chelās*. — As a counterpoise to the mercenaries in their employ, over whom they had a very loose hold, commanders were in the habit of getting together, as the kernel of their force, a body of personal dependents or slaves, who had no one to look to except their master. Such troops were known by the Hindī name of *chela* (a slave). They were fed, clothed, and lodged by their employer, had mostly been brought up and trained by him, and had no other home than his camp. They were recruited chiefly from children taken in war or bought from their parents during times of famine. The great majority were of Hindu origin, but all were made Mahomedans when received into the body of *chelās*. These *chelās* were the only troops on which a man could place entire reliance as being ready to follow his fortunes in both foul and fair weather. Muḥammad Khān Bangash's system of *chelās* is described by me in J.A.S. Bengal, part i, 1878, p. 340.

## CHAPTER II.

### RULES CONNECTED WITH PAY AND ALLOWANCES.

In the preceding paragraphs have been shown in general terms the rates of pay for the cavalry, and some of the rules by which pay was governed. When we come to the actual working out in detail of this part of the army administration, our difficulties increase. The official manuals, which are our only guide, are couched in the briefest of language, and naturally presume a knowledge of many things of which we are ignorant. Nor can we be certain whether the rules that they lay down were of general application or were applicable to certain classes of troops only. Thus the data are insufficient for any complete exposition of this part of the general subject. The matters treated of in the next following paragraphs are, moreover, of a somewhat miscellaneous description, and many of them might be better classed under other heads, such as Discipline, Recruiting, and so forth; but as there is not enough material to yield complete information, I have thought it better to deal with the greater part of them, as the native authors do, in their relation to the calculation of pay.

*Rates of Pay.* — The rates of pay for officers and men of the cavalry, forming numerically far the most important part of the army, have been already stated when dealing with the *manṣab* system. The rates for Infantry and Artillery, so far as recorded, will be stated when we come to those branches of the service.

*Date from which Pay Drawn.* — On an officer being first appointed, if by his rank he was exempt from having his



horses branded (*dāgh*), his pay began from the date of confirmation (*arṣ-i-mukarrar*). If such branding were necessary, pay began from the date of branding (the day itself being excluded), and as soon as this condition had been complied with, a disbursement was made of one month's pay on account. In the case of promotion, if it were unconditional, the rules were the same as above; if conditional, the pay began from the date of entering on office (*Dastūr-ul-'Aml*, B.M. 1641, fol. 37a, 58a; *id.* 6599, fol. 146b, *Dastūr-ul-Insha*, 233).

*Conditional (Mashrūt) and Unconditional (Bilā-shart) Pay.* — Rank and pay might be given absolutely, or they might be conditional on the holding of some particular office. The temporary or *mashrūt ba khidmat* rank was given as an addition to the permanent, *bilā-shart* rank which a man already occupied. On ceasing to hold the office, such as that of governor (*qūbahdār*) or military magistrate (*faujdār*), the *mashrūt* rank and pay were taken away.

*Pay always in Arrears.* — In later times pay due from the imperial treasury to the *manṣabdārs*, as well as that due from the *manṣabdārs* to the private soldiers, was always in arrears. In fact, we should not go far wrong, I think, if we asserted that this was the case in the very best times. The reasons are obvious. More men were entertained than could be easily paid, Indian Mahomedans are very bad financiers; the habit of the East is to stave off payment by any expedient. To owe money to somebody seems in that country the normal condition of mankind. For example, even such a careful manager as Nizām-ul-Mulk, in his alleged testament, dated the 4<sup>th</sup> Jamādī II, 1161 H. (31<sup>st</sup> May, 1748), is credited with the boast that he "never withheld pay for more than three months" ("Asiatick Miscellany," Calcutta, 1788, vol. iii, 160). Another reason for keeping the men in arrears may have been the feeling that they were thereby prevented from transferring their services to some other chief quite as readily as they might

have done if there were nothing owing. Disturbances raised by troops clamouring for their pay were among the unfailing sequels to the disgrace or sudden death of a commander. The instances are too numerous to specify. On this head Haji Mustapha, *Seir*, iii, 85, note 29, says truly enough: — "The troops are wretchedly paid, twenty or thirty months of arrears being no rarity. The ministers, princes, and grandees always keep twice or thrice as many men as they have occasion for, and fancy that by withholding the pay they concern the men in the preservation of their lord's life." We can also quote Lord Clive as to the state of things in the Bengal sūbah in 1757 ("Minutes of Select Committee of 1772," reprint, 52) — "There were great arrears due to the army by Sirāj-ud-Daulah as well as by Mir Jafar, and the sums amounted to three or four millions sterling. It is the custom of the country never to pay the army a fourth part of what they promise them; and it is only in times of distress that the army can get paid at all, and that is the reason why their troops always behave so" (badly?)

*Pay in Naqd and in Jāgīr.* — Pay (*tankhwāh*: literally, *tan* 'body,' *khwāh* 'need') might be either *Naqd*, that is, given in cash (*naqd*); or *Jāgīr* (literally, *jā* 'place,' *gīr*, taking, from *gīrīstan*), that is an assignment (*jāgīr*) of the land revenue of a certain number of villages (*mauza*) or of a subdivision (*pargana*). A certain number of officers and soldiers, chiefly those of the infantry and artillery, who were, as a rule, on the pay list of the emperor himself, were paid in cash. This seems to have been the case in all reigns up to quite the end. But the favourite mode of payment was by an assignment of the government revenue from land. Such an arrangement seems to have suited both parties. The State was a very, centralized organization, fairly strong at the centre, but weak at the extremities. It was glad to be relieved of the duty of collecting and bringing in the revenue from distant places.

This task was left to the *jāgīrdār*, or holder of the *jāgīr*, and unless such a *manṣabdār* were a great noble or high in imperial favour, the assignment was made on the most distant and most imperfectly subdued provinces.<sup>1</sup> On the other hand, a change of dealing with land and handling the income from it, has had enormous attractions in all parts of the world, and in none more than in India. Nobles and officers by obtaining an assignment of revenue hoped to make certain of some income, instead of depending helplessly for payment on the good pleasure of the Court. Then in negotiating for a *jāgīr* there were all sorts of possibilities. A judicious bribe might secure to a man a larger *jāgīr* than was his due; and if he were lucky, he might make it yield more than its nominal return. Many such considerations must have been present to their minds. Whatever be the true reasons, of this there can be no doubt, that the system was highly popular, and that the struggle for *jāgīrs* was intensely keen. As 'Abd-ul-Jalīl of Bilgrām writes to his son: "Service has its foundation on a *jāgīr*; an employé without a *jāgīr*, might just as well be out of employ." ("Oriental Miscellany", Calcutta, 1798). A recent French writer, M. Emile Barbé, "Le Nabab René Madec," 117, speaking of a *jāgīr* given in 1775, says: "Cette apparition des jaguirs dans l'Empire Mogol à son declin est un fait sociologique du plus haut intérêt." The system of *jāgīr* grants may be an interesting sociological fact — as to that I have nothing to say for or against; but it was not introduced into the Mogol Empire during its decline. *Jāgīrs* existed in that empire's most flourishing days, having been granted as early as Akbar (Blochmann, *Āfn*, i, 261), while under Shāhjahān they existed on a most extensive scale.

If the *jāgīr* were a large one, the officer managed it

<sup>1</sup> This may have been a development of Taimūr's practice of granting the pay of his amīrs from his frontier provinces. — Davy and White, "Institutes," 237.

through his own agents, who exercised on his behalf most of the functions of government. Such *jāgīrs* were practically outside the control of the local governor or *faujdār*, and formed a sort of *imperium in imperio*. The disastrous effects of the system, in this aspect, need not be further dwelt on here. On the other hand, a small *jāgīr* was more frequently left by the assignee in the hands of the *faujdār*, through whom the revenue demand was realized. Gradually, as the bonds of authority were relaxed from the centre, the *faujdārs* and *ṣubahdārs* ignored more and more the claims of these assignees, and finally ceased to remit or make over to them any of the collections.

I append here the first steps of official procedure followed in the grant of a *jāgīr*. We are to suppose that one Khawājah Raḥmatullah has been recalled from duty in some province, and that on appearing at court he has applied for a new *jāgīr*. Through the *Diwān-i-tan*, a great officer at the head of one of the two revenue departments, a *ḥaqīqat*, or Statement of Facts, was drawn up, in the following form (B.M. N<sup>o</sup>. 6599, foll. 156a to 157b): —

Statement (*Ḥaqīqat*).

Khawājah Raḥmatullah, son of Khawājah Aḥmad, a native of Balkh, who was attached to the standards in Province So-and-so, having come to the Presence in pursuance of the exalted orders, and the *jāgīr* which, up to such-and-such a harvest, was held by him in the said Province, having been granted to So-and-so, in this matter what is the order as to the *tankhwaḥ jāgīr* of the above-named.

[on the margin]	{	Presentation ( <i>mulāzamat</i> )
	{	Day so-and-so, month so-and-so
	{	Offering ( <i>nazar</i> )
	{	9 Muhrs (gold coins) and
	{	18 Rupees.

This *ḥaqīqat* was passed on by the *Diwān-i-tan* to the

*Divān-i-ʿālā* (or *wazīr*). The latter placed it before the Emperor. If an order were given for a *jāgīr* to be granted, the *wazīr* endorsed on the paper, "The pure and noble order issued to grant a *jāgīr* in *tankhwāh* from the commencement of such-and-such a harvest." This paper then became the voucher for the chief clerk to the *Divān-i-tan*, who wrote out a *siyāha daul*, or Rough Estimate, as follows:

### Rough Estimate.

Khawājah Raḥmatullah, son of Khawājah Aḥmad, of Balkh. Whereas he was on duty in Province So-and-so, and according to order has reached the Blessed Stirrup (*i. e.* the Court) —

One thousand, Personal (*zāl*)

200 men, Horse (*suwār*)

Pay in dāms

34 lakhs

Personal

Troopers

(*tābmān*)

18 lakhs

16 lakhs

= Total, 34 lakhs.

Feed of Four-footed animals (*Khūrāk-i-dawābb*) remitted.

Parganah So-and-so,  
situated in Province

So-and-so,

20 lakhs of Dāms.

Parganah So-and-so,  
situated in Province

So-and-so,

14 lakhs of Dāms.

It will be seen, on referring to a previous page, that as the man was 1000 *zāl*, but had only 200 *suwār* rank, he was a third class *Hazārī*. By the table this gives him 18 lakhs, and then 200 horsemen at 8000 dāms each comes to 16 lakhs, making the 34 lakhs which are sanctioned in the above.

The *dawl*, or estimate, was made over to the diary-writer (*wāqī'ah navis*), who, after he had entered it in the *wāqī'ah* (diary), prepared an extract called a memorandum (*yād-dāsh*) for submission to the office of the confirmation of orders (*arṣ-i-mukarrar*, lit. second petition). The *yād-dāsh* repeated the facts much in the same form as the *ḥaqīqat* and the *dawl*. On it the wazīr wrote: "Let this be compared with the diary (*wāqī'ah*) and then sent on to the confirmation office (*arṣ-i-mukarrar*)." On the margin the diary-writer (*wāqī'ah navis*) then reported: "This *yād-dāsh* accords with the *wāqī'ah*." Next the superintendent (*dāroghah*) of the confirmation office wrote: "On such-and-such a date of such-and-such a month of such-and-such a year this reached the confirmation office. The order given was — 'Approved.'" We need not follow here the further fate of the order after it left the Court and reached the governor of the province referred to.

*Loans, Advances, and Gifts.* — The technical name for a loan or advance of pay was *muṣā'adat* (Steingass, 1225, A, helping, favour, assistance, aid), and the conditions as to interest and repayment are given in Book ii, *Āīn* 15, of the *Āīn-i-Akbarī* (Blochmann, i, 265). Historians frequently mention the advance of money under this name. In later times, especially from the reign of Muḥammad Shāh, no commander ever took the field without the grant of the most liberal cash advances to meet his expenses. Possibly these were never repaid, or were from the first intended as free gifts. When we meet with the phrase *tankhwāh-i-inā'm*, I presume that there can be no doubt of the payment being a gift. Here the word *tankhwāh* seems to denote the order or cheque on the treasury, and the word *inā'm* (gift, present), differentiates it from other *tankhwāh*, which were in the nature of payments to be repeated periodically. The recovery of loans and advances came under a head in the accounts called *mūṭalibah* (Steingass, 1259, asking, claim, due). Another

term of somewhat similar import, *baz-yāft* (Steingass, 146, the resumption of anything, a deduction, stoppage), seems to have been confined to the recovery of items put under objection in the revenue accounts by the *muṣṭaufis*, or auditors. At one time the recovery of an advance was made from a man's pay in four instalments; but towards the end of 'Ālamgīr's reign, it was taken in eight instalments (B.M. N<sup>o</sup>. 1641, fol. 58*b*)

*Deductions.* — Of these I have found the following: *kasūr-i-do-dāmi* (fraction of the two dāms), *kharch-i-sikkah* (expenses of minting), *ayyām-i-hilālī* (days of the moon's rise), *hiṣṣah-i-ijnās* (share in kind), *khurāk-i-dawābb* (feed of four-footed animals)

*Kasūr-i-do-dāmi.* — *Kasur* is, literally, fractions, deficiencies, faults. This item was a discount of five per cent, that is, of two dāms in every forty, and therefore styled "do-dāmī" (B.M. 1641, fol. 37*a*). The origin of this is to be found possibly in Akbar's five per cent. deductions from the Aḥadī troopers on account of horses and other expenses (*Aḥn*, i, 250, line 14). The rate of deduction is differently stated in fol. 58*b*, B.M. 1641, as four dāms in the 100, if the officer drew seven or eight months' pay, and two dāms in the 100, if he drew less than that number of months.

*Kharch-i-sikkah* was also deducted: in 'Ālamgīr's reign the rates were Rs. 1 12*a*. 0*p*. per cent. on Shāhjahān's coinage, and Rs. 1 8*a*. 0*p*. per cent. on the coin of the reigning emperor. Under the rules then in force, the Shāhjahānī coins, not being those of the reigning emperor, were uncurrent, and therefore subject to a discount. Why a deduction was made on the coins of the reigning emperor, is harder to explain. It was not till Farrukhshāyar's reign, I believe, that the coinage was called in annually, from which time only coins of the current year were accepted, even by the government itself, at full face-value.

*Ayyām-i-hilālī.* — This was a deduction of one day's pay in every month except Ramaẓān. *Manṣabdārs*, *Aḥadis*, and

*barqandāz* (matchlockmen) were all subject to it. But, towards the end of 'Ālamgīr's reign, it was remitted until the Narbada was crossed, that is, I presume, so long as a man served in the Dakhin (B.M. 1641, fol. 55*b*, 62*b*). The reason for making this deduction is difficult to fathom; and about the name itself there is some doubt. In the first of the two entries just quoted, I read the word as *talāfī* (Steingass, 321, obtaining, making amends, compensation, reparation); but this variant, instead of throwing light on the subject, leaves it as obscure as before.

*Hiṣṣah-i-ijnās*. — *Jins* (goods) is used in opposition to *naqd* (cash), and this item (*hiṣṣah* share, *ijnās* goods) seems to mean the part of a man's pay delivered to him in kind. Apparently this item did not apply to the cavalry. In the case of the matchlockmen, artillerymen, and artificers, the deduction was  $\frac{1}{4}$  if the man were mounted, and  $\frac{1}{2}$  if he were not. This represented the value of the rations supplied to him. There is another entry of *rasad-i-jins* (supplies of food?), the exact nature of which I cannot determine (B.M. 1641, fol. 62*b*).

*Khurāk-i-dawābb*. — This is, literally, *khurāk*, feed, *dawābb*, four-footed animals. It was a deduction from a *manṣabdār's* pay on account of a certain number of horses and elephants belonging to the emperor, with whose maintenance such officer was saddled. The germ of this exaction can, I think, be found in Akbar's system of making over elephants to the charge of grandees (*Āfn*, i, 126). "He (Akbar) therefore put several *halkahs* (groups of baggage elephants) in charge of every grandee, and required them to look after them." Akbar would seem to have paid the expenses; but in process of time, we can suppose, the charge was transferred to the officer's shoulders entirely, and in the end he had to submit to the deduction without even the use of the animals being given to him. At any rate, the burden became a subject of great complaint. This is shown by a passage in *Khāfi Khān*, ii, 602.



"In the reign of 'Ālamgīr the *manṣabdārs* for a long period were reduced to wanting their evening meal, owing to the lowness of the assignments (*pāebāqi*) granted by the emperor. His stinginess reminds one of the proverb 'one pomegranate for a hundred sick men,' *yak anār, sau bimār*. After many efforts and exertions, some small assignment (*jāgīr*) on the land revenue would be obtained. The lands were probably uncultivated, and the total income of the *jāgīr* might not amount to a half or even a third of the money required for the expenses of the animals. If these were realized from the officer, whence could come the money to preserve his children and family from death by starvation? In spite of this, the Akhtah Begī (Master of the Horse) and other accursed clerks caused the cost of feeding the emperor's animals to be imposed on the *manṣabdārs*, and, imprisoning their agents at court, used force and oppression of all kinds to obtain the money.

"When the agents (*wakīls*) complained of this oppression to the emperor, the head of the elephant stables and the Akhtah Begī so impressed matters on the emperor's mind, that the complaints were not listened to, and all the men were reduced to such an extremity by this oppression, that the agents resigned their agency. In Bahādur Shāh's reign, the *Khān-i-Khānān* decided that when the *manṣabdārs* received a *jāgīr* for their support, the number of *dāms* required for the cost of feeding cattle should be deducted first from the total estimated income, and the balance should be assigned as the income. In this way, the obligation for meeting the cost of feeding the animals was entirely removed from the heads of the *manṣabdārs* and their agents. Indeed, to speak the truth, it was an order to absolve them from the cost of the cattle provender." Dowson (Elliot, vii, 403) could make nothing of this passage.

In the case of officers below a certain rank, the deduction of *khūrāk-i-dawābb* was not made. The rule says that where the pay (*tankhwāh*) did not come up to 15 lakhs

of *dāms*, the deduction was not made; but apparently no lower rank than that of 400 *zāt*, 200 *suwār*, was liable. This rank would by the tables draw a pay of 20 lakhs of *dāms*. As to the rate of deduction, the records are so obscure that I am unable to come to any conclusions. Sometimes we are told that the calculation was made at so many *dāms* on each 100,000 *dāms* of pay; at others, that for each 100,000 *dāms* one riding and five baggage elephants were charged for. A distinction in rates was made between Mahomedans and Hindus, the former paying more; also between officers holding *jāgīrs* in Hindūstān and those holding them in the Dakhin and Aḥmadābād, the former paying slightly less than the latter.

*Fines.* — We come now to the subject of fines, which were of various sorts, such as *tafāwat-i-asp* (deficiency in horses), *tafāwat-i-silāḥ* (deficiency in equipment), *tafāwat-i-tābīnān* (deficiency in troopers), also called, it would seem, *kamī-i-barādari*, *tawaqquf* o *‘adam-i-taḥṣīḥah* (non-verification), *saqatī* (casualties), *bartarafī* (rejections).

*Tafāwat-i-asp.* — This is literally “difference of horses,” and refers to a classification of horses by their breed and size, which will be referred to more fully under the head of Branding and Verification. In each rank or *manṣab* a certain number of each class of horse had to be maintained, and if at Verification it was found that this regulation had not been complied with, the result was a fine. In the section on Branding I give the rates so far as recorded.

*Tafāwat-i-silāḥ.* — This “difference in armour” was a fine for not producing at inspection arms and armour according to the required scale. The amount of fine and so forth I have stated further on under the head of Equipment.

*Tafāwat-i-tābīnān* (difference of followers) or *kamī-i-barādari* (deficiency in relations) was a fine imposed on an officer for non-production of the number of men stipulated for by the *suwār* rank. The following rates are stated in BM. 1641, fol. 37a, and I presume that the deductions

apply to *manṣabdārs* as well as to *Aḥadīs*, and that they were made from the monthly pay for each man deficient, although the entry is so brief as to remain very obscure:—

	NUMBER OF MONTHS FOR WHICH PAY WAS DRAWN.				
	FOUR MONTHS.	FIVE MONTHS.	SIX MONTHS.	SEVEN MONTHS.	EIGHT MONTHS.
Amount of fine in Rupees.	R. A. P. 2 8 0	R. A. P. 3 0 0	R. A. P. 4 0 0	R. A. P. 7 0 0	R. A. P. 8 0 0

In another passage, fol. 41, the same authority explains the matter thus. In the twenty-first year of 'Ālamgīr, a report on this subject having been made, the emperor allowed a term of four turns of guard (*chaukī*) for a *manṣabdār* to produce men of his own class or family (*barīdārī*), and for this period pay for the men was passed as if they had been present. But subsequently, on the first Rabi' of the twenty-third year, the delay was extended to two months, and for the time during which such men were not actually present, pay at half-rates was sanctioned.

*Aḥshām*. — In the case of the *Aḥshām*, or troops belonging to the infantry and artillery, we have a little more definite information under this head (B.M. 1641, fol. 64a). Officers of this class fell into three subdivisions, *hazāri* (of a thousand), *ṣadiwāl* (hundred-man), and *mirdahāh* (lord of ten). The first class was always mounted (*suwār*) and the second sometimes; these mounted officers might be two-horse (*dūaspah*) or only one-horse (*yakaspah*) men. Working on these distinctions, we get the following scheme of pay. *Dūaspah Suwār*: Where, inclusive of the officer's own retainers (*khāṣak*), there were one hundred men present per 100 of rank, pay was drawn at *dūaspah* rates. But if the number were under fifty per 100 of rank, pay was passed to the *hazāri* as if he were a mounted *ṣadiwāl*; subject to restoration to *dūaspah* pay when his muster

again conformed to the standard. *Yakaspah*: If, including *khāṣah* men, there were fifty men present per 100 of rank, full pay was given; if only thirty-one or under, then the *hazārī* was paid as a *ṣadiwāl piyādah* (unmounted), and certain other deductions were made. *Piyādah* (unmounted officer). — If a *ṣadiwāl* produced under thirty-one men out of his hundred, he received nothing but his rations. When the numbers rose above thirty, he was paid as a *mirdahah* till his full quota was mustered. In the case of a *mirdahah*, the production of two men entitled him to his pay. If one man only was paraded for inspection, a deduction from the pay was made, varying, on conditions which I have not mustered, from one to three annas per man.

*Tawaqquf-i-tashīḥah* (Delay in Verification). — The rules for Branding and Verification will be found further on. If the periods fixed were allowed to elapse without the verification having been made, a man was reported for delay; and then a *manṣabdar* was cut the whole, and an *aḥadī* the half, of his pay (B.M. 1641, fol. 58b).

*Sagati* and *Bartarafī*. — The first word is from *sagat shudan* 'to die' (applied to animals, Steingass, 687), and may be translated casualties. The other word means setting aside or rejecting, in other words to cast a horse as unfit. We find the groundwork of the *sagati* system in the *Aṭṭ-i-Akbarī*. Blochmann, i, 250. In later times there were the following rules for regulating pay in such cases. First it was seen whether the man was *duaspah* (paid for two horses) or *yakaspah* (paid for one horse). In the first case, (1) if one horse died (*sagat shavvad*) or was cast (*bar taraf shud*), the man was paid at the *yakaspah* rate; (2) if both horses died or were turned out, the man obtained his personal pay for one month, and if after one month he had still no horse, his personal pay was also stopped. In the second case, that of a *yakaspah*, if there were no horse, personal pay was disbursed for one month; but after one month nothing was given (B.M. 1641, fol. 41a).

If an *aḥadī's* horse died while he was at headquarters, the clerk of the casualties, after having inspected the hide, wrote out his certificate (*saqat-nāmah*), and pay was disbursed according to it. If the man were on detached duty when his horse died, the brand (*dāgh*), and the tail were sent in to headquarters (B.M. 1641, fol. 296).

*Other incidents of military service considered as affecting pay.* — Among these may be mentioned: (1) *Ghair-ḥāziri* (absence without leave); (2) *Bimāri* (illness); (3) *Rukḥṣat* (leave and furlough); (4) *Ḥarārī* (desertion); (5) *Barārafi* (discharge or resignation); (6) Pension; (7) *Fawt* (death).

(1) *Ghair-ḥāziri*. — If a man were absent from three consecutive turns of guard (*chauki*), his pay was cut; but if he did not attend the fourth time, the penalty was dismissal, and all pay due was confiscated. Absence from night guard or at roll-call (*jaizah*) involved the loss of a day's pay. If absent at the time of the emperor's public or private audience, or on a day of festival (*ʿid*), half a day's pay was taken (B.M. 1641, fol. 39a, 62b).

(2) *Bimāri*. — Absence on the ground of illness was overlooked for three turns of guard (*chauki*), but after that period all pay was stopped, and a medical certificate (*bimāri-nāmah*) from a physician was demanded (B.M. 1641, fol. 39a, 58a). The rule is somewhat differently stated in B.M. 6599, fol. 163b.

(3) *Rukḥṣat*. — Men who went on leave for their own business received no pay while doing no duty (B.M. 1641, fol. 41b). In another place in the same work, fol. 64b, we find a different statement. We are there told that for one month a man received half-pay; if he overstayed his leave it was reduced to one-fifth or one-tenth; and after three month's absence he was classed as an absconder. Leave on account of family rejoicings or mournings was allowed for one turn of duty; if the man were absent longer his pay was cut (B.M. 1641, fol. 39a). Again, on fol. 57b, a rule is stated, of which I am not able to understand the bearing. It

seems to be that not more than two months of arrears were to be paid to a man who took leave; but whether that means the arrears due to him when he left, or the pay accruing during his absence, I cannot say.

(4) *Farāri*. — If, among the *Aḥshām*, an absconder who had been some time in the service, left after drawing his pay in full, the amount was shown on the margin (*hasho*) of the pay-bill (*qabṣ*) as recoverable, and one month's pay was realized from the man's surety. If a recruit absconded after drawing money on account, the whole advance was recovered, but a present of one month's pay was allowed. If a matchlockman deserted the service of one leader to enter that of another, he was cut half a month's pay (*nīm-māhah*). But, if it were found that the *mirdahah* or *ṣadiwāl*, to whom he had gone, had induced him to desert, such officer had to pay the fine himself (B.M. 1641, fol. 64b). Pay of absconders was reckoned up to the date of the last verification, and three month's time was allowed (*idem*, fol. 57b). By the last phrase I understand that they were allowed that time to reappear, if they chose. If they were again entertained, their rations only were passed, that is, I presume, for the interval of absence (*idem*, fol. 64b).

(5) *Bartarafti*. — If the discharged *manṣabdār* produced a clear verification roll, he received half of the pay of his *zāl* rank, and the full pay of his horsemen (*tābinān*). Matchlockmen received their pay in full up to the date of discharge (B.M. 1641, fols. 57b; 62a).

(6) *Pension*. — So far as I have ascertained, there was no pension list, under that express name. No retiring allowances could be claimed as of right. When a man retired from active service, we hear sometimes of his being granted a daily or yearly allowance. Such was the case, for instance, when Nizām-ul-Mulk in Bahādur Shāh's reign threw up the whole of his offices and titles, and retired into private life. But the ordinary method of providing for an old servant was to leave him till

his death in undisturbed possession of his rank and jāgīr.

(7) *Ṛauti*. — It seems that in the case of deaths a different rule prevailed, according to whether the death was a natural one or the man lost his life on active service. In the one case half-pay and in the other full-pay was disbursed to the heirs on the production of a certificate of heirship (*wāris-nāmah*) attested by the *qāṣi*.

## CHAPTER III.

### REWARDS AND DISTINCTIONS.

The promise of honorary distinctions has been in all ages and in all countries one of the most potent agencies employed to incite men to exertion. We have our medals, crosses, orders, and peerages. The Moghul sovereigns were even more ingenious in converting things mostly worthless in themselves into objects to be ardently striven for and dearly prized. Among these were: (1) Titles; (2) Robes of Honour; (3) Gifts of Money and other articles; (4) Kettle-drums; (5) Standards and Ensigns.

1. *Titles*. — The system of entitlature was most elaborate and based on strict rule. This subject belongs, however, to the general scheme of government, and need not be set forth at length here. Suffice it to say, that a man would begin by becoming a *Khān* or Lord (added to his own name). After that, he might receive some name supposed to be appropriate to his qualities, coupled with the word *Khān*, such as *Ikhlas Khān*, Lord Sincerity; an artillery officer might be dubbed *Ra'd-andāz Khān*, Lord Thunder-thrower, or a skilful horseman, *Yakah-Tāz Khān*, Lord Single Combat, and so on. Round such a title as a nucleus, accreted all the remaining titles with which a man might from time to time be invested. As the empire declined in strength, so did the titles increase in pomposity, and long before the end of the dynasty the discrepancy between a man's real qualities and his titles was so great as often to be ridiculous. Still, these titles were never given



quite at random, nor were they self-adopted. Yet I read quite recently in a history of India, by a well-known and esteemed author, that one governor of Bengal was "a Brahman convert *calling himself* Murshid Kuli Khan." Now Murshid Quli Khān no more called *himself* by that name than has Earl Roberts of Candahar called himself by the title he bears. Both titles were derived from the accepted fountain of honour, the sovereigns of the states which those bearing them respectively served.

(2) *Robes of Honour*. — The *khilāʿt* was not peculiar to the military department. These robes of honour were given to everyone presented at court. Distinction was, however, made according to the position of the receiver. There were five degrees of *khilāʿt*, those of three, five, six, or seven pieces; or they might as a special mark of favour consist of clothes that the emperor had actually worn (*malbūs-i-khāṣ*). A three-piece *khilāʿt*, given from the general wardrobe (*khilāʿt-khānah*), consisted of a turban (*dastār*), a long coat with very full skirts (*jāmah*), and a scarf for the waist (*kamrband*). A five-piece robe came from the *toshak-khānah* (storehouse for presents), the extra pieces being a turban ornament called a *sarpech* and a band for tying across the turban (*bālāband*). For the next grade a tight-fitting jacket with short sleeves, called a Half-sleeve (*nimak-astin*), was added. A European writer, Tavernier (Ball, i, 163), thus details the seven-piece *khilāʿt*: (1) a cap, (2) a long gown (*kaʿbah*), (3) a close-fitting coat (*arkalon*), which I take to be *alkhāḥq*, a tight coat, (4) two pairs of trousers, (5) two shirts, (6) two girdles, (7) a scarf for the head or neck.

(3) *Gifts, other than money*. — These were naturally of considerable variety. I have drawn up the following list from Dānishmand Khān's history of the first two years of Bahādur Shāh's reign (1708—1710): Jewelled ornaments, weapons, principally swords and daggers with jewelled hilts, *pālkis* with fringes of gold lace and pearls, horses

with gold-mounted and jewelled trappings, and elephants. The order in which the above are given indicates roughly both the frequency with which these presents were granted and the relative value set upon them, beginning with those most frequently given and the least esteemed.

(4) *Kettledrums*. — As one of the attributes of sovereignty, kettledrums were beaten at the head of the army when the emperor was on the march; and in quarters they were beaten every three hours at the gate of his camp. The instruments in use, in addition to the drums, will be found in the *Āīn-i-Akbarī* (Blochmann, i, 51). As a mark of favour, kettledrums (*naqqārah*)<sup>1</sup> and the right to play them (*naubat*) might be granted to a subject. But he must be a man of the rank of 2000 *suwār* or upwards. As an invariable condition, moreover, it was stipulated that they should never be used where the emperor was present, nor within a certain distance from his residence. Marching through the middle of Dihli with drums beating was one of the signs by which Sayyad Ḥusain ‘Alī Khān, Amīr-ul-Umarā, notified defiance of constituted authority, when he returned from the Dakhin in 1719, preparatory to dethroning the Emperor Farrukhsiyar. The drums when granted were placed on the recipient's back, and, thus accoutred, he did homage for them in the public audience hall. In Lord Lake's case the investment was thus carried out: "Two small drums of silver, each about the size of a thirty-two pound shot, the apertures covered with parchments, are hung round the neck of the person on whom the honour is conferred, then struck a few times, after which drums of the proper size are made." — Thorn, "War," 356. There is on record another instance of miniature drums being used in this way, as a symbol. When conferring on him the right to the *naubat*, Aḥmad Shāh (1748—1754) gave such drums to Dāīm Khān, a favorite

<sup>1</sup> Khūshhāl Chand, Berlin ms. 495, fol. 1126b uses the word *kūrkah*, (Steingass, 1060, T, "a big drum").

*chela* of Aḥmad Khān, Bangash, of Farrukhābād. ("Bangash Nawābs," Journal A. S. B., 1879, p. 161.)

(5) *Flags and Ensigns*. — The flags and ensigns displayed, along with a supply of spare weapons, at the door of the audience hall and at the entrance to the emperor's encampment, or carried before him on elephants, were called collectively the *Qūr* (Pavet de Courteille, "Dict.," 425, ceinture, arme, garde), and their charge was committed to a responsible officer called the *Qūr-beg*. An alternative general name sometimes employed was *māhī-o-marātīb* (Fish and Dignities), or more rarely, the *panjuh* (literally, Open Hand). It is, no doubt, the *Qūr* which Gemelli Careri describes thus (French ed. iii, 192): "Outside the audience tent I saw nine men in red velvet coats embroidered with gold, with wide sleeves and pointed collars hanging down behind, who carried the imperial ensigns displayed at the end of pikes. The man in the middle carried a sun, the two on each side of him had each a gilt hand, the next two carried horse-tails dyed red. The remaining four, having covers on their pikes, it could not be seen what it was they held."

In the *Āḥn*, i, 50, we are told of eight ensigns of royalty, of which the first four were reserved exclusively for the sovereign. The use of the others might, we must assume, be granted to subjects. The eight ensigns are — (1) *Aurang*, the throne; (2) *Chatr*, the State umbrella; (3) *Sāybān* or *Aftābgir*, a sunshade; (4) *Kaukabāh* (plate ix, N<sup>o</sup>. 2); (5) *‘Alam*, or flag; (6) *Chatr-lok*, or yak-tails; (7) *Tūman-tok*, another shape of yak-tails; (8) *Jhanda*, or Indian flag. To these we must add (9) *Māhī-o-marātīb*, or the fish and dignities.

The origin and meaning of the different ensigns displayed by the Moghul Emperors in India have been thus described, *Mirāt-ul-Istīlāh*, fol. 5: —

(1) *Panjah*, an open hand, is said to mean the hand of ‘Alī. Taimūr ordered it to be carried before him for

a charm and as a sacred relic. 'It was said that he captured it when he overcame the Siyāhposh tribe. In 1708 Gentil saw four different "pondjehs" (*ie. panjahs*) carried on horseback in Ṣalābat Jang's cavalcade; they were copper hands fixed on the end of a staff ("Mémoires," 61).

(2) *ʿAlam*, a flag or standard. — This was supposed to be the flag of Husain, and obtained by Taimūr at Karbalah. To it he attributed his victory over Bāyāzīd, the Kaisar of Rūm.

(3) *Mīzān*, a balance, was a reference to the equal scales of Justice, and was adopted as having been the emblem of Nūshīrwān the Just. There is a figure on a plate in Gentil's "Mémoires," which is probably the *Mīzān*.

(4) *Aflāb*, or Sun, was obtained from the fire-worshippers when they were conquered; it was an article used in their worship.

(5, 6) *Azhduha-paikar*, Dragon-face. — From the time of Sikandar of the Two Horns, the rajahs of Hind had worshipped this emblem in their temples, and when Taimūr made his irruption into India it was presented to him as an offering. It consisted of two pieces, one carried in front and the other behind the emperor.

(7) *Māhi*, or Fish, was said to have been an offering from the islands of the ocean, where it was worshipped.

(8) *Qumqumah* (Steingass, 989, a bowl, a jug, a round shade, a lantern). — This also was obtained from the Indian rajahs. The *Afn-i-Akbari*, i, 50, has *kaukabah* for apparently the same thing (see figure N<sup>o</sup>. 2 on plate ix). There is also what looks like the *kaukabah* in a plate in Gentil's "Mémoires." The definition of *kaukabah* in Steingass, 1063, corresponds with the figure in the *Afn*, viz. "a polished steel ball suspended from a long pole and carried as an ensign before the king." Careri, iii, 182, tells us that he saw a golden ball hanging by a chain between two gilt hands, and adds that "it was a royal ensign carried on an elephant when the army was on the march."

All these emblems, we are told, were carried before the emperor as a sign of conquest over the Seven Ûlimes, or, in other words, over the whole world.

*Māhi-o-marātīb*. — Some words must be added with special reference to this dignity, which was borne on elephants or camels in a man's retinue. It was one of the very highest honours, as it was not granted to nobles below the rank of 6000 *zāt*, 6000 *suwār* (*Mirāt-ul-Iqtilāh*, fol. 3). *Māhi* (literally, a fish), was made in the figure of a fish, four feet in length, of copper gilt, and it was placed horizontally on the point of a spear (*Seir*, i, 218, note 150, and 743, note 51). Steingass, 1,147, defines *māhi-marātīb* as "certain honours denoted by the figure of a fish with other insignia (two balls)" But in careful writers I have always found it as *māhi-o-marātīb*, "fish and dignities," and, as I take it, the first word refers to the fish emblem and the second to the balls or other adjuncts which went with it. The *marātīb* Thorn, "War," 356, describes as a ball of copper gilt encircled by a *jhālar* or fringe about two feet in length, placed on a long pole, and, like the *māhi*, carried on an elephant. Can this be Genelli Careri's "golden ball"? Perhaps it was identical with the *qumqumah* or *kaukabah* already described above. The translator of the *Seir-Mutaq-herin*, i, 218, note 150, tells us that the fish was always accompanied by the figure of a man's head in copper gilt. This must have been in addition to the gilt balls. The *māhi*, as conferred on Lord Lake on the 14<sup>th</sup> August, 1804 (Thorn, "War," 356), is described as "representing a fish with a head of gilt copper and the body and tail formed of silk, fixed to a long staff and carried on an elephant." James Skinner, who recovered Mahādajī-Sendhia's *māhi-o-marātīb* in a fight with the Rajputs, speaks of it as "a brass fish with two chourees (horse-hair tails) hanging to it like moustachios" (Fraser, "Memoir," i, 152). Gentil, "Mémoires," 62, calls the *māhi* simply "the head of a fish on the end of a pole." As a sign of the rarity of this dignity, he

adds that while in the Dakhin (1752—1761) he only saw four of them.

*Sher-marātib*, or lion dignity. — This is a name only found, so far as I know, in Gentil, "Mémoires," 62; and he only saw it displayed by Ṣalābat Jang, nāzim of the Dakhin. At the head of the dedication of the above work to the memory of Shujāʿ-ud-Daulah, are the figures of two elephants; one of which bears a standard that is most likely identical with this *Sher-marātib*. The flag bears a lion embroidered on it, and the head of the staff is adorned with the figure of a lion.

*ʿAlam*. — The flags seem to have been triangular in shape, either scarlet or green in colour, having a figure embroidered in gold and a gold fringe. The staff was surmounted by a figure corresponding to the one embroidered on the flag. A plate in Gentil's "Mémoires" shows four of these embroidered emblems --- 1<sup>st</sup>, a *pañah*, or open hand; 2<sup>nd</sup>, a man's face with rays; 3<sup>rd</sup>, a lion (*sher*); and 4<sup>th</sup>, a fish. A flag, or *ʿalam*, could be granted to no man under the rank of 1000 *suwār*.

*Āflābhgiri*. -- This sun screen (*āflāb*, sun; *giri*, root of *giriftan*, to take), shaped like an open palm-leaf fan, was also called *Suraj-mukhi* (Hindī, literally, sun-face). By the Moghul rules it could only be granted to royal princes (*Murāt-ul-Istīlāh*, fol. 3). In the eighteenth century, however, the Mahrattas adopted it as one of their commonest ensigns, and even the smallest group of their cavalry was in the habit of carrying one.

*Tuman-togh*. — This is one of the two *togh* mentioned in Akbar's list, *Āīn* i, 50, and figured on plate ix of that volume. Pavet de Courteille, "Dict.," 236, has *توغ* (*togh*), "étendard se composant d'une queue de فطاس (*qatās*) ou bœuf de montagne (i. e. yak) fixée à une hampe, au dessus d'un pavillon triangulaire." This yak's-tail standard was not unfrequently granted to officers of rank, by whom it was esteemed a high honour. The *togh* consisted generally

of three tails attached to a cross-bar, which was fixed at the end of a long pole or staff.

*Summary.* — Thus, apart from titles or money rewards, or ordinary gifts, a man might be awarded any of the following honorary distinctions, of a more permanent character — (1) the right to carry a flag or simple standard, (2) the right to display a yak-tail standard, (3) the right to use kettle-drums and beat the *naubat*, (4) the right to display the fish and its accompanying emblems, (5) the right to use a litter adorned with gold fringes and strings of pearls. Of course, all these things were dependent on the caprice of the monarch; for in the Moghul, like in all Oriental states — *Ba yak nukta mahram* (محرّم) *mujrim* (مجرّم) *shavvad*: By one spot “confidant” becomes “criminal”

## CHAPTER IV.

### PROCEDURE ON ENTERING THE SERVICE.

Single men who resorted to the Court in the hope of obtaining employment in the army, were obliged first to seek a patron. A man generally attached himself to a chief from his own country or of his own race: Mughals became the followers of Mughals, Persians of Persians, Afghāns of Afghāns, and so forth. On this point there were certain customary rules, which are thus stated by Khūshhāl Chand, Berlin Ms. 495, fol. 1072*b*. A noble from Māwar-un-nahr recruited none but Mughals; if from Irān, he might have one third Mughals and the remainder Sayyads and Shekhs, or if he took Afghāns and Rājputs, of the former he might entertain one sixth and of the latter, one seventh of his total number. Nobles who were Sayyads or Shekhs might enlist their own tribe, or up to one sixth they might take Afghāns. Afghāns themselves might have one half Afghāns and the other half Mughals and Shekhzādahs. Rājputs made up their whole force of Rājputs. At times men of high rank who desired to increase their forces would remit large sums of money to the country with which they were specially connected, and thereby induce recruits of a particular class to flock to their standard. For instance, in the reign of Muḥammad Shāh (1719—1748), Muḥammad Khān, Bangash, filled his ranks in this way with men from the Bangash country and with Afrīdī Pathāns. According to a man's reputation or connections, or the number of his followers, would be the rank (*manṣab*) assigned to him. As a rule, his followers brought their



own horses and other equipment; but sometimes a man with a little money would buy extra horses and mount relations or dependents upon them. When this was the case, the man riding his own horse was called, in later parlance, a *silāḥdār* (literally, equipment-holder), and one riding somebody else's horse was a *bārgīr* (burdentaker). The horses and equipment were as often as not procured by borrowed money; and not unfrequently the chief himself made the advances, which were afterwards recovered from the man's pay. The candidate for employment, having found a patron, next obtained through this man's influence an introduction to the *Bakhshī-ul-mamālūk* or *Mir Bakhshī*, in whose hands lay the presentation of new men to the emperor, and on his verdict a great deal depended as to the rank (*manṣab*) which might be accorded.

*The Bakhshī.* — This officer's title is translated into English sometimes by Paymaster-General, at others by Adjutant-General or Commander-in-Chief.<sup>1</sup> None of these titles gives an exact idea of his functions. He was not a Paymaster, except in the sense that he usually suggested the rank to which a man should be appointed or promoted, and perhaps countersigned the pay-bills. But the actual disbursement of pay belonged to other departments. Adjutant-General is somewhat nearer to correctness. Commander-in-Chief he was not. He might be sent on a campaign in supreme command; and if neither emperor, vicegerent (*wakīl-i-mullāq*), nor chief minister (*wazīr*) was present, the command fell to him. But the only true Commander-in-Chief was the emperor himself, replaced in his absence by the *wakīl* or the *wazīr*. The word *Bakhshī* means 'the giver,' from *bakhshīdan*, P. 'to bestow,' that is, he was the giver of the gift of employment in camps and armies (*Dastūr-ul-Inshā*, 232); or might it not better be connected with another meaning, "to divide into shares, to distribute," making *Bakhshī* to equal "the

<sup>1</sup> Blochmann, *Ā'in*, i, 161, has Paymaster and Adjutant-General.

distributor, the divider into shares?" In Persia the same official was styled 'The Petitioner' ('*āriz*'). This name indicates that it was his special business to bring into the presence of the emperor anyone seeking for employment or promotion, and there to state the facts connected with that man's case. Probably the use of the words *Mir* '*Arz*' in two places in the *Āīn-i-Akbarī* (Blochmann, i, 257, 259) are instances of the Persian name being applied to the officer afterwards called a *Bakhshī*. The first *Bakhshī* (for there were four) seems to have received, almost as of right, the title of *Amīr-ul-umarā* (Noble of Nobles); and from the reign of 'Ālamgīr onwards, I find no instance of this title being granted to more than one man at a time, though in Akbar's reign such appears to have been the case (*Āīn*, i, 240, Blochmann's note).

*Duties of the Bakhshī-ul-mamālik.* — These duties comprised the recruiting of the army; maintaining a list of *mansabdārs* with their postings, showing (1) officers at Court, (2) officers in the provinces; keeping a roster of the guard-mounting at the palace; preparing the rules as to grants of pay (*tankhwāh*); keeping up a list of officers paid in cash, and an abstract of the total pay-bills; the superintendence of the mustering for branding and verifying the troopers' horses and the orders subsidiary thereto; the preparation of the register of absentees, with or without leave, of deaths, and dismissals, of cash advances, of demands due from officers (*mutālibah*), of sureties produced by officers, and the issue of written orders (*dastak*) to officers sent on duty into the provinces.<sup>1</sup> One special duty belonging to the *Bakhshī* was, in preparation for a great battle, to assign posts to the several commanders in the van, centre, wings, or rearguard. The *Bakhshī* was also expected on the morning of a battle to lay before the emperor a present state or muster roll, giving the

<sup>1</sup> *Dastūr-ul-Inshā*, 232, *Dastūr-ul-ʿAmī*, B.M. 6590, fol. 159a, and B.M. 1641, fols. 28, and 17b to 22a.

exact number of men under each commander in each division of the fighting line.

*The other Bakhshs.* — Besides the First *Bakhsh*, ordinarily holding the title of *Amīr-ul-umārā*, and styled either *Bakhsh-ul-mamālik* (B. of the Realms) or *Mir Bakhsh* (Lord B.), there were three other *Bakhshs* at headquarters. It is a little difficult to fix upon the points which distinguished their duties from those of the First *Bakhsh*. The Second *Bakhsh*, usually styled *Bakhsh-ul-mulk* (B. of the Kingdom), was also called the *Bakhsh-i-tan*.<sup>1</sup> As *tan* (literally, body) was a contraction for *tankhwāh*, pay (literally *tan*, body, *khwāh*, desire, need), it might be supposed that his duties were connected with the records of *qāḡirs*, or revenue assignments granted in lieu of pay, just as in the revenue department the accounts of these grants were under a special officer, the *Diwān-i-tan*. But on examining such details of the Second *Bakhsh*'s duties as are forthcoming, I find that this supposition does not hold good. On the whole, the duties of the First, Second, and Third *Bakhshs* seem to have covered much the same ground. The main distinction, perhaps, was that the Second *Bakhsh* dealt more with the recruiting and promotion of the smaller men, while only those above a certain rank were brought forward by the *Mir Bakhsh*. The Second *Bakhsh* was, it would appear, solely responsible for the bonds taken from officers, a practice common to all branches and ranks of the imperial service. His office would seem also to have been used to some extent as a checking office on that of the First *Bakhsh*, many documents requiring his seal in addition to that of the *Mir Bakhsh*, and copies of many others being filed with him. The same remarks apply generally to the Third *Bakhsh*, the greatest difference

<sup>1</sup> Dānishmand Khān, 18<sup>th</sup> Shawwāl 1119, Khafī Khān, ii, 601, Yahyā Khān, fol. 114a.

being perhaps that he took up only such recruiting work as was specially entrusted to him, and that whatever he did required to be counter-sealed by the First and Second *Bakhshs*. His duties were on altogether a smaller scale than those of the other two.

From the details in one work, *Dastūr-ul-ʿAml*, B.M. 1641, fols. 28*b*, 29*a*, it might be inferred that the Second *Bakhsh*'s duties were connected with the *Aḥadīs*, or gentlemen troopers serving singly in the emperor's own service. The difficulty, however, at once arises that the Fourth *Bakhsh* had as his alternative title that of *Bakhshī* of the *Aḥadīs*. The third *Bakhsh* was also called occasionally *Bakhsh* of the *Wāḥ Shāhīs*, that is of the household troops, men raised and paid by the emperor out of his privy purse.<sup>1</sup>

*Provincial and other Bakhshs.* — In addition to the *Bakhshs* at headquarters there were officers with similar functions attached to the governor of every province. With the office of provincial *Bakhsh* was usually combined that of *Wāqīʿah-nigār*, or Writer of the Official Diary. And in imitation of the imperial establishments, each great noble had his own *Bakhsh*, who performed for him the same functions as those executed for the emperor by the imperial *Bakhshs*.

*First Appointment of an Officer.* — On one of the appointed days, the *Bakhsh* laid before His Majesty a written statement, prepared in the office beforehand and called a *Ḥaqīqat* (statement, account, narration, explanation). The man's services having been accepted, the emperor's order was written across this paper directing the man to appear, and a few days afterwards, the candidate presented himself in the audience-hall and made his obeisance. When his turn came the candidate was brought forward, and the final order was passed. The following is a specimen of a *Ḥaqīqat*, with the orders upon it: —

<sup>1</sup> *Kāmwar Khān*, entry of 1<sup>st</sup> Jamādī I, 1119.

## Report

is made that So-and-So, son of So-and-so, in hope of serving in the Imperial Court, has arrived at the place of prostration attached to the Blessed Stirrup (*i. e.* the Court). In respect of him what are the orders?

[First Order.] The noble, pure, and exalted order issued that the above-named be brought before the luminous eye (*i. e.* of His Majesty), and he will be exalted according to his circumstances.

[Second Order in two or three days' time.] To day the aforesaid passed before the noble sight; he was selected for the rank (*manṣab*) of One Thousand, Two Hundred Horse (*suwār*).

The next step was the issue of a *Taşdıq*, or Certificate, from the *Bakhshī's* office, on which the *Bakhshī* wrote his order. It was in the following form: —

## Certifies

as follows, that So-and-So, son of So-and-so, on such-and-such a date, of such-and-such a year, in the hope of serving in this homage-receiving Court, arrived at the Blessed Stirrup and passed before the luminous sight. The order, to which the world is obsequious and the universe submissive, was issued that he be raised to the rank (*manṣab*) of one Thousand, Two Hundred Horse (*suwār*).

One Thousand, *zāt*.

Two Hundred, *suwār*.

[Order thereon of the *Bakhshī*.] Let it be incorporated in the Record of Events (*Wāqī'ah*).

On the arrival of the Certificate (*Taşdıq*) in the office of the *Wāqī'aknigār*, or Diary Writer, he made an appropriate entry in his record and furnished an extract therefrom,

which bore the name of a *Yād-dāsh̄t*, or Memorandum. In form it was as follows: —

Memorandum (*Yād-dāsh̄t*).

On such-and-such a date, such-and-such a day of the week, such-and-such a month, such-and-such a year, in the department (*risālah*) of One endowed with Valour, a Shelter of the Courageous, the Object of various Imperial Condescensions, Submissive to the Equity of the world-governing favours, the *Bakhsh* of the Realms So-and-so, and during the term of duty as Event Writer of this lowliest of the slaves So-and-so, it was reduced to writing that So-and-so, son of So-and-so, having come to the place of prostration in the hope of service at the Imperial Court, on such-and-such a date passed before the pure and noble sight. The world-compelling, universe-constraining order obtained the honour of issue, that he be raised to and selected for the rank (*manṣab*) of One Thousand Personal (*zāt*) and Two Hundred Horsemen (*suwār*) in the chain (*silḥ*) of rank-holders (*manṣabdārān*). — On such-and-such a date, in accordance with the Certificate *Taṣdiq*, this Memorandum (*Yād-dāsh̄t*) was penned.

One Thousand, *zāt*.

Two Hundred, *suwār*.

I. [Order of the Wazīr.]

After comparing it with the Diary (*Wāqīʿah*), let it be sent to the Office of Revision (*ʿArṣ-i-mukarrar*).

II. [Report of the Event Writer.]

Agrees with the diary (*Wāqīʿah*).

III. [Order of the Superintendent of Revision, literally Renewed Petition (*ʿArṣ-i-mukarrar*).]

On such-and-such a date, of such-and-such a month, of such-and-such a year, it was brought up for the second time.

In the later notices of the system we find few mentions of the paper called in the *Āīn* (Blochmann, i, 258) the *ta'hqah*, which was, it seems, an abridgment of the *Yād-dāsh*. This paper the *ta'hqah*, formed at that time the executive order issued to the officer concerned (*Āīn*, i, 255). I have found *ta'hqah* used once in this sense as late as 1127 H. (1716), by Sayyad 'Abd-ul-Jalīl, Bilgrāmī, in his letters sent from Dihli to his son, "Oriental Miscellany," Calcutta, 1798, p. 247).

*The Ahadis.* — Midway between the nobles or leaders (*manṣabdars*) with the horsemen under them (*tāhnān*) on the one hand, and the *Aḥshām*, or infantry, artillery, and artificers on the other, stood the *Aḥadī*, or gentleman trooper. The word is literally 'single' or 'alone' (A. *aḥad*, one). It is easy to see why this name was applied to them; they offered their services singly, they did not attach themselves to any chief, thus forming a class apart from the *tāhnān*; but as they were horsemen, they stood equally apart from the specialized services included under the remaining head of *Aḥshām*. The title of *Aḥadī* was given, we are told (*Seir*, i, 262, note 201), to the men serving singly "because they have the emperor for their immediate colonel." We sometimes come across the name *Yakkah-tāz* (riding alone), which seems, when employed as the name of a class of troops, to mean the same body of men as the *Ahadis*. Horn, 20, 56, looks on the *Aḥadis* as a sort of body-guard or *corps d'élite*; and in some ways that view may be taken as true, though there was not, as I think, any formal recognition of them as such. The basis of their organization under Akbar is set out in *Āīn* 4 of Book ii (Blochmann, i, 219), and they are referred to in several other places (i, 20, 161, 231, 246, 536). In the strictest sense, the body-guard, or defenders of the imperial person, seem to have been the men known as the *Walā Shakhī* (literally, of or belonging to the Exalted King), and, no doubt, these are the four thousand men referred to by

Manucci ("Catrou," English ed. of 1826, p. 297) as 'the emperor's slaves.'<sup>1</sup> Whether slaves or not, the *Wālā Shāhī* were the most trusted troops of the reigning sovereign. From various passages I find that they were chiefly, if not entirely, men who had been attached to his person from his youth and had served under him while he was still only a royal prince, and were thus marked out in a special manner as his personal adherents and household troops. The *Yasāwals* or armed palace guards were something like the *Wālā Shāhī* so far as they were charged with the safety of the sovereign; but they differed from the latter in not having the same personal connection with him. The *Aḥadis* received somewhat higher pay than common troopers. In one instance we are told expressly what those rates were in later times. On the 2<sup>nd</sup> Šafar of his second year (1120 H. 22<sup>nd</sup> April, 1708), Bahādur Shāh, as Dānishmand Khān tells us, ordered the enlistment of 4,700 extra *Aḥadis* at Rs. 40 a month, the money to be paid from the Exchequer.

Towards the end of the eighteenth century the household troops, we are told, *Seir*, i, 91, note 90, amounted to 40,000 men, all cavalry, but usually serving on foot in the citadel and in the palace. They consisted then of several corps besides the *Aḥadis*, such as the *Surkh-posh* (wearers of red), the *Sultānī* (Royal), the *Wālā Shāhī* (High Imperial), the *Kāmal-posh* (Blanket Wearers). Hujī Mustapha is not, however, quite consistent with himself, for elsewhere (*Seir*, i, 262, note 201), when naming still another corps, the *ʿAlā Shāhī* (Exalted Imperial), he asserts that the *Surkh-posh* were all infantry, eight thousand in number. The curious title used above, *Kāmal-posh*, comes from the Hindī word *kammāl*, a coarse blanket, having also the secondary meaning of a kind of cuirass (*Seir*, i, 143, note 105). The latter is no doubt the signification here.

<sup>1</sup> The word meant may be *Bandahhāe*, or, perhaps preferably, the *Qūl*, the *Chaghutāe* for 'slave.' — P. de Courteille, 433.



## CHAPTER V.

### BRANDING AND VERIFICATION.

False musters were an evil from which the Moghul army suffered even in its most palmy days. Nobles would lend each other the men to make up their quota, or needy idlers from the bazaars would be mounted on the first baggage pony that came to hand and counted in with the others as efficient soldiers. Great efforts were made to 'cope with this evil, and in the earlier times with some success. In the later reigns, notably from the middle of Muḥammad Shāh's reign (1719—1748), all such precautions fell into abeyance, amid the general confusion and ever-deepening corruption. By 1174 H. (1761) the system had so entirely disappeared from the *ṣubah* of Aḥmadabād, that clerks acquainted with the rules could not be found there (*Mirāt-i-Aḥmadī*, ii, 118).

Mustapha, the translator of the *Siyar-ul-mutākharrin*, gives us an instance of the length to which this cheating was carried (*Seir*, i, 609, note). In Bengal, in the year 1163 H. (1750), when 'Alī Wirdī Khān, Mahābat Jang, was nāzim, an officer receiving pay for 1700 men could not muster more than seventy or eighty. Mustapha, who wrote in 1787—8, adds from his own experience — "Such are, without exception, all the armies and all the troops of India; and were we to rate by this rule those armies of 50,000 and 100,000 that fought or were slaughtered at the decisive battles of Palāśī [Plassy] and Baksar [Buxar] (and by some such rule they must be rated), we would have incredible deductions to make. Such a rule, however, would not answer for Mīr Qāsim's troops (1760—1764), where there was not one single false

muster, nor would it answer' for Ḥaidar 'Alī's armies." The admitted difference between recorded and actual numbers is emphasised by Khūshḥāl Chand's expression, Berlin Ms. 495, fol. 1091a, *Manjūdh, nah kāghazī*, "actually present, not merely on paper", used in reference to the force brought to Dihlī by Burhān-ul-mulk at the time of Nādir Shāh's invasion.

It was to put down these evil practices that the emperor Akbar revived and enforced more strictly than before a system of descriptive rolls of men and horses, the latter being branded with a hot iron before they were passed for service. This branding, with the consequent periodical musters for the purpose of comparison and verification, formed a separate department under the *Bakhsh* with its own superintendent (*dāroghah*), and this was known as the *dāgh-o-taṣḥīhah*, from *dāgh*, a brand, a mark, and *taṣḥīhah*, verification. The usual phrase for enlisting was *asp bu dāgh rasānudan*, "bringing a horse to be branded." Branding was first introduced by 'Alā-ud-dīn Khiljī in 712 H. May, 1312—April, 1313, but on his death it was dropped (*Dastūr-ul-Inshā*, 233). The emperor Sher Shāh, Afghān, started it again in 948 H. April, 1541—April, 1542. Akbar (*Āīn*, i, 233) re-established the practice in the eighteenth year of his reign (about 981 H., 1573—4), and it was continued until the time when the whole system of government finally broke down in the middle of the eighteenth century. At first many difficulties were made (*Dastūr-ul-Inshā*, 234), and evasions were attempted, but at length the system was made effective. The great nobles, holding the rank of 5000 and upwards, were exempt from the operation of these rules; but when ordered, they were expected to parade their horsemen for inspection (*Dastūr-ul-ʿAml*, B.M., N<sup>o</sup>. 6599, fol. 144b). The technical name for these parades was *ماحله mahallah* (Steingass, 1190), a word evidently connected with that used in Akbar's time for branding, viz. *dāgh-o-mahallī* (*Āīn*, i, 242; *Budāoni*, ii, 190). The germ of the *dāgh* system may perhaps be found

in the practice in Transoxiana of annually branding the colts. This was done so far back as the twelfth century; see E. G. Browne on the *Chahār Muqālāh* of 'Arūdī (composed about 1161 A.D.), *Journal R. Asiatic Soc.* (1899), pp. 771 and 776.

As said before, the recruit was supposed, at any rate so far as the State was concerned, to furnish his own horse. Orine states the case thus: — "Every man brings his own horse and offers himself to be enlisted. The horse is carefully examined: and according to the size and value of the beast, the master receives his pay. A good horse will bring thirty or forty rupees a month. Sometimes an officer contracts for a whole troop. A horse in Indostan is of four times greater value than in Europe. If the horse is killed the man is ruined, a regulation that makes it the interest of the soldier to fight as little as possible." — "Historical Fragments," 4<sup>th</sup> edition, 418. Along with his horse the man brought his own arms and armour, the production of certain items of which was obligatory. In actual practice, however, the leaders often provided the recruits with their horses and equipment. When this was the case the leader drew the pay and paid the man whatever he thought fit. Such a man, who rode another's horse, was called a *bārgir* (load-taker); while a man riding his own horse was in modern times called a *silāhdār* (weapon-holder). The latter word is the origin of the Anglo-Indian phrase of "Sillidar cavalry," applied to men who are paid a lump sum monthly for themselves, horse, uniform, and equipment.

*Descriptive Rolls.* — When an officer entered the service (B.M. N<sup>o</sup>. 6599, fol. 160a) a *Chikrah* or descriptive roll<sup>1</sup>

<sup>1</sup> Literally 'face,' 'countenance.' It must not be confounded with *chirah*, which means (1) a kind of turban, (2) a pay-roll, on which the recipients signed, (3) the pay itself. *Chirah* is used in the second sense in *Aḥwāl-ul-khawāqin*, fol. 230b; and also by Ghulām Ḥasan, Samīn, when telling us of the taunt addressed in 1170 H. (1757) by Aḥmad Khān, Bangash, to Najib Khān, Najib-ud-daulah, of having been once a private trooper in Farrukhābād, where his pay-rolls (*chirah-hāe*) were still in existence.

of the new *manṣabdar* was first of all drawn up, showing his name, his father's name, his tribe or caste, his place of origin, followed by details of his personal appearance. His complexion might be "wheat-colour" (*gandum-rang*), "milky," i. e. white (*shir-fām*), "red" (*surkh-post*), or "auburn" (*maigun-rang*). His forehead was always "open" (*farāgh*); his eyebrows either full (*kushādah*) or in whole or in part *moshak* (?); his eyes were sheep-like (*mish*), deer-like (*āhū*), ginger-coloured (*adrak*), or cat's eyes (*gurbah*). His nose might be "prominent" (*buland*) or "flat" (*past*). He might be "beardless" (*amrad*) or "slightly bearded" (*rish o barwat āghāz*); his beard might be "black" (*rish o barwat siyāh*), or "slightly red" (*siyāh i maigun-numā*), "thin" (*khal*?), "shaven" (*mutarash*), "goat-shaped" (*kosah-i-khurd*), or "twisted up" (*shaqiqah*). So with any moles he might have; the shape of his ears, whether projecting or not, whether the lobes were pierced or not, and whether he was pock-marked or not — all these things were noted. Ashob, *Shahādāt*, fol. 84a, tells us that in the imperial service the *chikrahs* were written on red paper sprinkled with gold leaf.

*Roll for Troopers.* — The troopers (*tābīnān*) were also described, but not quite so elaborately. A specimen is as follows (B.M. N°. 6599, fol. 163a): —

#### Troopers' Roll (*Chikrah-i-Tābīnān*).

Qamr 'Alī, son of Mir 'Alī, son of Kabīr 'Alī, wheat complexion, broad forehead, separated eyebrows, sheep's eyes, prominent nose, beard and moustache black, right ear lost from a sword-cut. Total height, about 40 *shānah*.


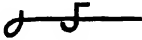






Horse. — Colour *kabūd* (iron-grey?). Mark on left of breast. Mark on thigh on mounting side. *Laskar* (?) on thigh on wamp side. Brand of four-pointed stamp +







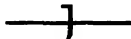
\* Descriptive Roll of Horses (*Chihruk-i-aspān*).

The next thing done was to make out an elaborate description of the horse or horses (B.M. N<sup>o</sup>. 6599, fol. 106b). There were twenty principal divisions according to colour, and eight of these were again subdivided, so that there were altogether fifty-eight divisions. Then there were fifty-two headings for the marks (*khāl-o-khat*) which might occur on the horse's body.

The Imperial Brand.

The hot iron was applied on the horse's thigh (*Seir*, i, 481, note 27). The signs used in Akbar's reign are given in the *Āīn*, i, 139, 255, 256; but in the end he adopted a system of numerals. In 'Ālamgīr's reign and about that time there were twenty different brands (*tamghah*), of which the shapes of fifteen have been preserved and are reproduced below (B.M. N<sup>o</sup>. 6599, fol. 161a). I am not certain of the spelling, and in most instances I am utterly unable to suggest a meaning for the names.

NAME.	FORM OF BRAND.
1. <i>Chahār parhā</i> (four feather?)	
2. <i>Chahār parhā jomar-khaj</i>	
3. <i>Chahār parhā dūr khaj</i>	
4. <i>Chahār parhā sihsar khaj</i>	
5. <i>Chakūsh</i>	
6. <i>Istād</i> (upright)	
7. <i>Uftādah</i> (recumbent)	
8. <i>Istādah o uftādah</i>	

NAME.	FORM OF BRAND.
9. <i>Yak ba do</i> (one with two)	
10. <i>Asaran</i>	
11. <i>Togh</i> (horse-tail standard)	
12. <i>Panjah-i-murgh</i> (hen's foot)	
13. <i>Mizān</i> (balance)	
14. <i>Do dārah taur</i>	
15. <i>Chahār bārah makar khaj</i>	

### The Noble's Brand.

It is obvious that in addition to the imperial brand, a second mark was required by each noble for the recognition of the horses ridden by his own men. Accordingly we find direct evidence of this second marking in Bernier, 216, and again 243, when he speaks of the horses "which bear the omrah's mark on the thigh." Towards the end of the period the great nobles often had the first or last letter of their name as their special brand (*Seir*, i, 481, note 27), as, for instance, the *sin-dāgh* (س) of Sa'dat 'Alī Khān, nāzim of Audh. The brand of Sayyad 'Abdullah Khān, was عبد ('*abd*), according to Khushhāl Chand, Berlin Ms. 495, fol. 1020a. Ghulām 'Alī Khān (B.M., Add. 24,028, fol. 63b) tells us that about 1153 H. (1740—41) Muḥammad Ishāq Khān used the last letter of his name, a *qāf* (ق), as his brand. The way of selecting the brands is further illustrated by a passage in Kām Rāj's *Azam-ul-ḥarb*. When A'zam Shāh in 1119 H. (1707) was on his march from the Dakhin, some new brands were chosen. "As the brand of the *Wālā Shāhi* (personal troops) was '*Azmā*, that of Bedār Bakht, the eldest son, was *mankab*, and of Wālā Jāh, the second son, was *khail*, it was thought

fit to fix on the word *hashm* (هشم) as that of 'Alā Tabār, the youngest son." It is to be inferred from this passage that in each instance the first letter of the word was used.

### Classification of Horses.

According to the *Aḥn*, i, 233, there were seven classes of horses founded on their breed - (1) 'Arabi, (2) Persian, (3) *Mujannas*, resembling Persian, and mostly 'Turkī or Persian geldings, (4) *Turkī*, (5) *Yābu*, (6) *Tāzi*, (7) *Janglah*.

In 'Ālamgīr's reign we find (B.M. N<sup>o</sup>. 6599, fol. 163a) the following classification: (1) 'Irāqī, (2) *Mujannas*, (3) *Turkī*, (4) *Yābu*, (5) *Tāzi*, (6) *Jangh*. This is practically the same as Akbar's, except that Arab horses are not mentioned. This must be an oversight, since we learn from many passages in the contemporary historians that Arab horses were still in use. The *Tāzi* and *Jangh* were Indian horses, what we now call countrybreds, the former being held of superior quality to the latter. The *Yābu* was, I suppose, what we call now the *Kābuli*, stout-built, slow, and of somewhat sluggish temperament. The *Turkī* was an animal from Bukhārā or the Oxus country; the 'Irāqī came from Mesopotamia.

In 'Ālamgīr's reign the proportion in which officers of the different ranks were called on to present horses of these different breeds at the time of branding was as follows: —

RANK OF OFFICER.	CLASS OF HORSE.				TOTAL
	'IRĀQĪ.	MUJANNAS.	TURKĪ.	YĀBŪ.	
400	3	1	1	0	5
300—350	2	1	1	0	4
100—150	0	0	3	0	3
80—90	0	0	2	0	2
50—70	0	0	1	1	2
40	0	0	1	0	1

These figures differ from those in the *Āyn*, i, 248—9, where the number of horses is given for all *manṣabs*, up to the very highest. Some figures are also given in *Mirāt-i-Aḥmadī*, ii, 118, which agree on the whole with those in the above table.

According as the standard was exceeded or not come up to, the branding officer made an allowance or deduction by a fixed table. This calculation was styled *tafāwat-i-aspān* (discrepancy of horses) — B.M. N<sup>o</sup>. 6599, fol. 163a. The extra allowances were as follows: —

HORSE REQUIRED BY REGULATION	HORSE PRODUCED	ADDITIONAL ALLOWANCE
		Rs.
<i>Turki</i>	<i>Irūqī</i>	12
<i>Turki</i>	<i>Mujannas</i>	6
<i>Tuzi</i>	<i>Turki</i>	8
<i>Yābu</i>	<i>Turki</i>	9

When an inferior horse was produced the following deduction was made: —

HORSE REQUIRED BY REGULATION	HORSE PRODUCED.	DEDUCTION.
		Rs.
<i>Turki</i>	<i>Jangh</i>	12
<i>Yābu</i>	<i>Jangh</i>	10
<i>Tuzi</i>	<i>Jangh</i>	8

### Subordinate Establishment.

An establishment of farriers, blacksmiths' forges, and surgeons had to be maintained by each *manṣabdār*, according to the following scale. (B.M. N<sup>o</sup>. 1641, fol. 38b): —



RANK OF OFFICER	NUMBERS OF ESTABLISHMENT.		
	FARRIERS ( <i>Na'iband</i> )	BLACKSMITHS' SHOPS ( <i>Ahangar</i> ).	LEECHES OR SURGEONS ( <i>Jarāh</i> ).
4000	8	2	2
3500	7	2	2
3000	6	2	2
2500	5	1	0
2000	4	1	2
1500	3	0	1
1000	2	0	1

Or, according to a more recent scale. —

1500—4000

The *Mirāt-i-Ahmadī*, ii, 118, states that thirty men on foot were required to be entertained for every 1000 of *manṣab* rank. These included water-carriers, farriers, pioneers, matchlockmen and bow-men.

### Verification (*Taḥṣīḥah*).

Something on this subject will be found in the *Āīn*, i, 250, where the reference is confined to the *ahadīs*; Dr. Horn, so far as he goes into the matter at all, deals with it on p. 49 of his work. In later times, at all events, the rule of mustering and verification seems to have been of almost universal application. For example, in a work called the *Guldastah-i-Bahār*, a collection of letters from Chhabīlah Rām, Nāgar, compiled in 1139 H. (1726—7), of which I possess a fragment, I find on fol. 18a an instance of the verification rules being enforced against a *manṣabdār* in the end of Bahādur Shāh's reign (1118—24 H.). Chhabīlah Rām, who was then *faujdar* of Karrah Mānikpur (ṣūbah Allahābād), complains to his patron that the clerks had caused his *jāgīr*, in parganah Jājmau, bringing in ten lakhs of *dāme*, to be taken away from him, because he had not

produced vouchers of *dāgh-o-taṣṭīḥah*. He sends the papers by a special messenger, and prays his correspondent, some influential man at Court, to obtain the restoration of the *jāgīr* in question.

The intervals after which verification was imperative varied according to the nature of the man's pay. If he were paid in *jāgīr*, he had to muster his men for verification once a year, and, in addition, a period of six months' grace was allowed. If the officer were paid in *naqd* (cash), the time allowed depended upon whether he was — (1) present at Court (*hāzīr-i-riqāb*), or (2) on duty elsewhere (*ta'īnāt*). In the first case he had to procure his certificate at six-month intervals, or within eight months at the outside. In the second case he was allowed fifteen days after he had reported himself at Court. An *aḥadī* seems to have been allowed, in a similar case, no more than seven days. Where an officer drew his pay partly in *jāgīr* (assignment) and partly in *naqd* (cash), if the former made more than half the total pay, the rule for *jāgīrdārs* was followed; if the *jāgīr* were less than half, the *naqdī* rule was followed. (B.M. 1641, fols. 31a, 39b).

When the interval and the period of grace had elapsed, the man was reported for *tawagquf-i-taṣṭīḥah* (delay in verification). A *manṣabdār* lost the whole of his pay for the period since the last verification; or, if he were important enough to have been presented to the emperor (*ru-shinās*, known by sight), he might succeed in obtaining his personal pay. An *aḥadī* lost half his pay, and it was only by an order on a special report that he could be excused the penalty. The proportion of horsemen (*tābīnān*) that a *manṣabdār* must produce differed when he was at Court and when he was on duty in the provinces. In the first case he was bound to muster one-fourth, and in the second one-third, of his total number or as the case is stated in the *Ma'āsir-ul-umarā*, ii, 444, "In the reign of Shāhjahan it was decided that if an officer held a *jāgīr*

within the *ṣubāh* to which he was attached, he should produce one third of his *tābinān* for Branding. Thus if he were 3000 *zāt*, 3000 *suwār*, he would produce 1000 horsemen. If sent to another *ṣubāh* of Hindustān, then one fourth had to appear. During the campaign in Balkh and Badakhshān, owing to the great distance, one fifth was held to be sufficient." There were three seasons appointed for verification, from the 26<sup>th</sup> Shawwāl to the 15<sup>th</sup> Zūl Qa'dah (twenty days), the 19<sup>th</sup> Ṣafer to the 15<sup>th</sup> Rabī' I (twenty-five days), and the 16<sup>th</sup> Jamādī II to the 15<sup>th</sup> Rajab (twenty-nine days). (B.M. 1641, fols. 31a, 39b, 58b, B.M. 6599, fol. 148a).

*Officials and their duties.* — At head quarters officers entitled Amīn, dāroghah, and mushrif were appointed by the emperor to the Verification department, which was under the supervision of the chief bakhshis. The Bakhshis made the appointments for the provinces. In addition to his personal rank (*manṣab*), the Amīn received a *manṣab* of 10 horse while in office (*Mirāt-i-Aḥmadī*, ii, 118). The duties are thus described by Hidāyatullah, Bahārī, in his *Hidāyat-ul-quwāid*, fol. 13a. The dāroghah should compare the marks and points (*khat-o-khāl*) of the horses with the descriptive roll (*chihrah*), and inspect the horses to see whether they were fit for the service or not. If fit for branding, he should cause the brand to be imposed, signing the descriptive roll, adding the day, month and year, with the words "Two horses such-and-such branded." If it were a two-horse man, he should certify for two horses and send the original descriptive roll to the office of the Bakhshī, retaining a copy sealed by the Bakhshī among his own records. Two months having passed, he should in the third month inspect and verify according to the copy of the roll, looking to see if the marks correspond. His inspection report was entered on the back of the roll, giving day, month, and year, thus: "So-and-so with his horses and arms was inspected." If it was a one-horse man, the dāroghah wrote:

"Man and one horse inspected." If it were a foot matchlock-man or an archer, he wrote on the back of the roll: "Man and arms inspected." For carpet-layers and servants belonging to the court establishment he wrote on the back of the roll. When the paper was full, another sheet was attached. The peshkār (head clerk) of the dāroghah drew up according to rule a present state, giving details of those present and absent and the receipts. He then brought it up for orders. The dāroghah attached his seal to the report and sent it on to the Bakhshī's office. In accordance therewith an order (*barāt*) on the Treasury was prepared for each man. The dāroghah ought to see that the horsemen and infantry are present on the march and on guard. He should enjoin on the guard-clerk to make an inspection at midnight of the men posted on guard, and write down the names of those present. According to the *Mirāt-i-Aḥmadī*, ii, 118, the officials after the mustering and verification made out certificates (*daṣṭak*) bearing the seals of the dāroghah, amīn, and mushrif, which were delivered to the *manṣabdār* concerned.

## CHAPTER VI.

### THE DIFFERENT BRANCHES OF THE SERVICE.

Although in writing this essay I think it better to retain the divisions of the original authorities, who distribute the army into *manṣabdārs* (with their *tābīnān*), *aḥadis*, and *aḥshām*, it is quite true that, as Dr. Horn says, p. 11, the Moghul army consisted of cavalry, infantry, and artillery. But the second and third branches held a very subordinate position towards the first. The army was essentially an army of horsemen. The Moghuls from beyond the Oxus were accustomed to fight on horseback only; the foot-soldier they despised; and in artillery they never became very proficient. Until the middle of the eighteenth century, when the French and English had demonstrated the vast superiority of disciplined infantry, the Indian foot-soldier was little more than a night-watchman, and guardian over baggage, either in camp or on the line of march. Under the Moghuls, as Orme justly says "Hist. Frag.," 4<sup>to</sup>, p. 418, the strain of all war rested upon the numbers and goodness of the horse which were found in an army. Their preference for hand to hand fighting and cavalry charges is well illustrated by the remarks attributed to Prince A'zam Shāh in 1707 by Bhīm Sen, *Nuskhah-i-dilkushā*, fol. 162a, that "to fight with artillery was a stripling's pastime, the only true weapon was the sword."

There was no division into regiments. Single troopers, as we have already said, enlisted under the banner of some man a little richer or better known than themselves. These inferior leaders again joined greater commanders, and thus,

by successive aggregations of groups, a great noble's division was gathered together. But from the highest to the lowest rank, the officer or soldier looked first to his immediate leader and followed his fortunes, studying his interests rather than those of the army as a whole.<sup>1</sup> It was not till quite the end of the period that, under the influence of European example, and also partly in imitation of the Persian invaders, it became usual for the great nobles to raise and equip at their own expense whole regiments without the intervention of petty chiefs. In Audh, Şafdar Jang and Shujā'ud-Daulah had such regiments, as, for instance, the *Qizzilbāsh*, the *Sher-bachah*, and others, which were all clad alike, and apparently were mounted and equipped by the Nawāb himself.

When Akbar first introduced the *manṣab* system, which ranked his officers according to the number of men supposed to be under the command of each, these figures had possibly some connection with the number of men present under those officers' orders, and actually serving in the army (Horn, 39). But it is tolerably certain that this connection between the two things did not endure very long: it was, I should say, quite at an end by the reign of Shāhjahān (1627—58). Indeed, if the totals of all the personal (*zāt*) *manṣabs* in existence at one time were added together, we should arrive at so huge an army that it would have been impossible for the country, however heavily taxed, to meet such an expense. If paid in cash, the army would have absorbed all the revenue; if paid by assignments, all the land revenue would have gone direct into the hands of the soldiery, leaving next to nothing to maintain the Court or meet the expenses of the other branches of the government. The inference I wish to draw is, that from the grant of rank it does not follow that the soldiers implied by such rank were really added to the army. The system required that a man's rank should be stated in terms of so many soldiers;

<sup>1</sup> For remarks to the same general effect, see W. Erskine, "History," ii, 540.

but there is abundant testimony in the later historians that *manṣab* and the number of men in the ranks of the army had ceased to have any close correspondence.

Thus it seems to me a hopeless task to attempt, as Dr. Horn does, p. 39, following Blochinann (*Āṭn*, i, 244—7), to build up the total strength of the army from the figures giving the personal (*zāt*) rank of the officers (*manṣabdārs*). The difficulty would still exist, even if we had sufficiently reliable accounts of the number of such officers on the list at any one time. For we must remember that the number of men kept up by any officer was incessantly varying. On a campaign, or on active employment in one of the provinces, either as its governor or in a subordinate position, an officer kept up a large force, generally as many as, if not more than, he could find pay for. On the other hand, while attached to the Court at Dihli, his chief or only duty might be to attend the emperor's public audience twice a day (a duty which was very sharply enforced), and take his turn in mounting guard at the palace. For duties of this sort a much smaller number of men would suffice. If we reckoned the number of men in the *suwār* rank, for whom allowances at so much per man were given by the State to the *manṣabdār*, we might obtain a safer estimate of the probable strength of the army. But for this also materials fail, and in spite of musterings and brandings, we may safely assume that very few *manṣabdārs* kept up at full strength even the quota of horsemen (*tābinān*) for which they received separate pay. In these matters the difference between one noble and another was very great. While one man maintained his troops at their full number, all efficiently mounted and equipped, another would evade the duty altogether. As, for instance, one writer, Khūshhāl Chand, in his *Nādir-uz-zamānī* (B.M. Or. 1844, fol. 140a) says: Lutfullah Khān Ṣādiq, although he held the rank of 7,000, "never entertained even seven asses, much less horses or riders on horses." In Muḥammad Shāh's reign he lived

quietly at home at Pānīpat, 30 or 40 miles from Dihli, his attention engrossed by his efforts to get hold of all the land for many miles round that town, and passing his days, in spite of his great nominal rank, like a mere villager.

*It seems to me equally hopeless to attempt a reconstruction of the force actually present at any particular battle by adding together the numerical rank held by the commanders who were at that battle.* This Dr. Horn has tried to do on p. 67, without feeling satisfied with the results. But, as far as I can see, there was little, if any, connection between the two matters. The truth is that, like all things in Oriental countries, there existed no rules which were not broken in practice. A man of high rank would, no doubt, be selected for the command of a division. But it was quite an accident whether that division had more or fewer men in it than the number in his nominal rank. The strength of a division depended upon the total number of men available, and the extent of the contingents brought into the field by such subordinate leaders as might be put under the orders of its commander. It was altogether a matter of accident whether the number of men present corresponded or not to the rank of the commanders.

Bernier, 43, has an excellent remark on the vague way that numbers were dealt with by historians: "Camp-followers and bazar-dealers . . . I suspect, are often included in the number of combatants." Again, on p. 380, he seems to come to the conclusion that it would be a fair estimate to take the fighting men at about one-third of the total numbers in a Moghul camp. I have seen somewhere (I have lost the reference, but I think it was in Khāfi Khān) an admission that the gross number of a so-called "fauj" (army) was always reckoned as including no more than one-third or one-fourth that number of fighting men. I give below, for what it is worth, a tabular summary of Dr. Horn's figures (pp. 39—45) —



## ESTIMATED NUMBERS OF MOGHUL ARMY

PERIOD.	CAVALRY.	MATCHLOCKMEN AND INFANTRY.	ARTILLERY- MEN.	AUTHORITY.
Akbar	12,000	12,000	1000	Blochmann, i, 246.
Do.	384,758	3,877,557	—	<i>Am-i-Akbari</i> . <sup>1</sup>
Shāhjahān	200,000	40,000	—	<i>Badshāhnāmā</i> , ii, 715; <i>Am</i> , i, 244.
Aurangzeb	240,000	15,000	—	Bernier.
Do.	300,000	600,000	—	Catrou.
Mhd. Shah	200,000	800,000	---	<i>Tārīkh-i-Mundī</i> of Rustam 'Alī.

## NUMBERS PRESENT ON PARTICULAR OCCASIONS.

NAME OF BATTLE OR COMMANDER.	NUMBER OF IMPERIALISTS				NUMBER OF ENEMY.				AUTHORITY.
	Cavalry	Infantry.	Artillery	Elephants.	Cavalry	Infantry.	Artillery.	Elephants	
Sarkhej ....	10,000	—	—	100	40,000	100,000	—	—	<i>Akbarnāmā</i> iii, 424.
Under Khān Azim . . .	10,000	—	—	—	30,000	—	—	—	<i>Id.</i> iii, 593
Under Khān Khānān ...	1200	—	—	—	5000	—	—	—	<i>Id.</i> iii, 608
Sadiq Khān ..	3000	—	—	—	8000	—	—	80	<i>Id.</i> iii, 714
Qandahār (1061 H) ...	50,000	10,000	—	10	—	—	—	—	Elliot, vii, 90
Jahāngir (1016 H) ...	12,500	2000	—	60	—	—	—	—	<i>Id.</i> vi, 318.
Ahmad Abdālī (1174 H) ...	60,000	20,000	—	—	—	—	—	—	—

<sup>1</sup> These include all the militia levies and zamindār's retainers throughout the provinces, besides the army proper.

## CHAPTER VII.

### EQUIPMENT. — (A) DEFENSIVE ARMOUR.

The generic name for arms and armour was *silāḥ*, plural *aslāḥ* (Steingass, 693). Weapons and armour of all kinds were much prized in India, much taste and ingenuity being expended on their adornment. Every great man possessed a choice collection. The following extract describes that of the Nawāb Wazīr at Lakhnau, in 1785: — “But beyond everything curious and excellent in the Nawāb’s possession are his arms and armour. The former consist of matchlocks, fuzees, rifles, fowling-pieces, sabres, pistols, scymitars, spears, syefs (long straight swords), daggers, poniards, battle-axes, and clubs, most of them fabricated in Indostan, of the purest steel, damasked or highly polished, and ornamented in relief or intaglio with a variety of figures or foliage of the most delicate pattern. Many of the figures are wrought in gold and silver, or in marquetry, with small gems. The hilts of the swords, etc., are agate, chrysolite, lapus-lazuli, chalcedony, blood-stone, and enamel, or steel inlaid with gold, called *tynashee*<sup>1</sup> or *kofṭ* work. The armour is of two kinds, either of helmets and plates of steel to secure the head, back, breast, and arms, or of steel network, put on like a shirt, to which is attached a netted hood of the same metal to protect the head, neck, and face. Under the network are worn linen garments quilted thick enough to resist a sword. On the crown of the helmet are stars or other small device, with a sheath to receive a plume of feathers. The steel plates are handsomely decorated with gold wreaths and borders, and the network fancifully braided.” (“Asiatic Miscellany,” i, 393. Calcutta, 1795. 4<sup>to</sup>.)

<sup>1</sup> Probably for *tah-nishāni*, inlaid with gold or studded with gems. *Kofṭ* (beating) is gold or silver wire beaten into iron or steel.

The fines for not producing at inspection a man's own armour and that of his elephant (*pākhar*) were as follows (B.M. 6,599, fol. 162a): —

RANK OF OFFICER	AMOUNT OF FINE FOR NON-PRODUCTION OF				
	Headpiece ( <i>Khud</i> )	Body Armour ( <i>Baklar</i> ).	Elephant Armour ( <i>Pakhar</i> ).	Girvan ( <i>Ranak</i> ).	Hachai(?) <sup>1</sup>
400	Rs. a. p. 2 0 0	Rs. a. p. 5 0 0	Rs. a. p. 4 0 0	Rs. a. p. 2 0 0	Rs. a. p. 1 0 0
350	2 0 0	4 0 0	3 12 0	1 12 0	0 15 0
300	1 12 0	4 0 0	3 8 0	1 8 0	0 14 0
250	1 8 0	3 8 0	3 4 0	1 4 0	0 13 0
200	1 0 0	3 0 0	3 0 0	1 0 0	0 12 0

Armour was worn by all horsemen who could afford it; nay, officers of a certain rank were required to produce it at the time of inspection, subject to a fine if it were not forthcoming. Its use was never discontinued; it was even worn by men of European descent when they entered the native service. For instance, James Skinner, writing of the year 1797, says, "as I was exercising my horse *in full armour*" (Fraser, "Memoirs," i, 125); and again, "I was only saved by my armour" (*id.* 127). George Thomas, the Irish adventurer, also wore armour (*id.* 229). Nor is the use of armour entirely discontinued even to this day, as those can testify who saw the troops of the Bundelkhand States paraded before the then Prince of Wales at Agrah in January, 1876.

The armour was worn as follows (W. Egerton, 112, note to N<sup>o</sup>. 440): — Depending from the cuirass was generally a skirt, which was at times of velvet embroidered with gold. Underneath the body armour was worn a *qabchah*,<sup>2</sup> or jacket quilted and slightly ornamented. Silken trousers

<sup>1</sup> Read *sari-aspi* in B.M. 1641, fol. 37a, but to neither reading can I assign a meaning.

<sup>2</sup> Apparently the diminutive of *qabā*, a close long gown or shirt (Steingass, 950).

and a pair of kashmīr shawls 'round the waist completed the costume of a nobleman of high rank. As to these quilted coats, we are told elsewhere (*Seir*, i, 624, note) that "common soldiers wore an ample upper garment, quilted thick with cotton, coming down as far as the knee. These coats would deaden the stroke of a sabre, stop the point of an arrow, and above all kept the body cool by intercepting the rays of the sun." Or as a still later writer tells us (Fitzclarence, "Journal," 143)<sup>1</sup>: — "The irregular cavalry throughout India are mostly dressed in quilted cotton jackets; though the best of these habiliments are not, as I supposed, stuffed with cotton, but are a number of cotton cloths quilted together. This serves as a defensive armour, and when their heads are swathed round, and under the chin, with linen to the thickness of several folds, it is almost hopeless with the sword to make an impression upon them. They also at times stuff their jackets with the refuse silk of the cocoons, which they say will even turn a ball." This habit of swathing the body in protective armour till little beyond a man's eyes could be seen, gives the point to the scoffing remark of Dāūd Khān, Pannī, at the battle against Ḥusain 'Alī Khān, fought on the 8<sup>th</sup> Sha'bān, 1127 H. (6<sup>th</sup> Sept., 1715), that his assailant, one Mīr Mushrif, "came out to meet him like a bride or a woman, with his face hidden" (Ghulām 'Alī Khān, *Muqaddamah-i-Shāh 'Ālam-nāmah*, fol. 22b).

I now proceed to describe each part of the armour, *seriatim*, beginning with the helmet.

*Khūd, Dubalqah, or Top.* — This was a steel headpiece with a vizor or nose-guard. There are several specimens in the Indian Museum; and in W. Egerton, "Handbook,"

<sup>1</sup> Lieut.-Col. Fitzclarence was created Earl of Munster in 1831, and he is the Lord Munster referred to by Dr. Horn on p. 8 as the author of a series of ~~Questions~~ on Mahomedan military usages. His "Journal," the work of a close observer and graphic writer, proves that he was quite competent to write for himself, and not merely "schreiben zu lassen," the history that he had planned.

several of these are figured, Nos 703 and 704 on plate xiii, N<sup>o</sup>. 703 on p. 134, and another, N<sup>o</sup>. 591, on p. 125. *Khud* is the more usual name, but *dabalghah* is the word used in the *Āṛn* (Blochmann, I, iii, N<sup>o</sup>. 52, and plate xiii, N<sup>o</sup>. 43). The latter is Chaghataī for a helmet; and Pavet de Courteille gives four forms, داوولغا, داوولغا, دبولغه (p. 317), and دولوغه (p. 322). I have only met with it once in an eighteenth-century writer (*Aḥwāl-ul-Khawāqin*, c. 1141 H., fol. 161b), and then under the form دبولغه, *dobalghah*. *Ṭop*, for a helmet, appears several times in Egerton; for instance, on p. 119 and p. 125. This is apparently an Indian word (Shakes., 73), *توب*, which must be distinguished from the word *top*, *نوپ*, a cannon, to which a Turkish origin is assigned. A helmet seems to have been called a *top* by the Mahrattas and in Maisur; but the word is not used by writers in Northern India. If we disregard the difference between *ت* and *ط*, then we can derive *ṭop*, 'a helmet,' and *ṭopī*, 'a hat,' as does the compiler of the "Madras Manual of Administration," iii, 915, from the ordinary Hindī word *topnā*, 'to cover up.' But I hardly think this is legitimate.

*Khoghī*. — The next name to the *dabalghah* on the *Āṛn* list, the *khoghī*, N<sup>o</sup>. 53, must be something worn on the head; but there is no figure of it, and I fail to identify the word in that form. From the spelling it is evidently of Hindī origin; and a note in the Persian text has *ghokhi* as an alternative reading. Has it anything to do with *ghoghī*, a pocket, a pouch, a wallet (Shakespeare, 1756), or *ghunghī*, cloths folded and put on the head as a defence against the rain (Shakes., 1758)? The latter may point to a solution: the *khoghī*, or, better, the *ghughī*, may have been folds of cloth adjusted on the head to protect it from a sword blow.

*Mighfar* is defined (Steingass, 1281) as mail, or a network of steel worn under the cap or hat, or worn in battle as a protection for the face, also a helmet. It is evidently

the long piece of mail hanging down from the helmet over the neck and back, as shown in N<sup>o</sup>. 45, plate xii, of the *Āīn*, vol. i, and called there and on p. 111, N<sup>o</sup>. 54, the *zīrikkulāh* (cap of mail). It was through the *mighfar* that, according to Ghulām ‘Alī Khān’s history, the arrow passed which wounded ‘Abdullah Khān, Qutb-ul-Mulk, just before he was taken a prisoner at the battle of Hāsanpur (13<sup>th</sup> Nov., 1720), and the following verse brings in the word, as also the *joshan*: —

*Chah yāre kunad mighfar o joshan-am,  
Chūn Bārī na kard akhtar roshan-am.*

“What aid to me is vizor and coat of mail,  
“When God has not made my star to shine.”<sup>1</sup>

*Baktar* or *Bagtar*. — This is the name for body armour in general, whether it were of the cuirass (*chahār-āīnah*) or chain-mail (*zīrih*) description. Steingass, 195, defines it as a cuirass, a coat of mail. See also the *Dastūr-ul-Inshā*, 228. The *bagtar* is N<sup>o</sup>. 58 in the *Āīn* list (i, 112), and is shown as N<sup>o</sup>. 47 on plate xii. From the figure it may be inferred that, in a more specific sense, *baktar* was the name for fish-scale armour. *Bargustuwān*, as Mr. H. Beveridge has pointed out to me, is a general name for armour used in the *Tabaqāt-i-Nāṣiri*, text 119 (Raverty, 466 and note); but that work belongs to a period long before the accession of the Moghuls. Steingass, 178, restricts *bargustuwān* to horse armour worn in battle: the *Ahwāl-ul-Khawāqin*, fol. 218b, applies it to the armour worn by *elephants*, and I have found it in no other late writer.

*Chahār-āīnah*. — This is literally ‘four mirrors’: it

<sup>1</sup> *Muqaddimah-i-Shah ‘Ālam-nāmah* by Ghulām ‘Alī Khān, B.M. Add. 24,028, fol. 40a. The last line probably contains an allusion to Roshan Akhtar, the original name of Muḥammad Shāh, to whom ‘Abdullah Khān succumbed.

consisted of four pieces, a breast plate and a back plate, with two smaller pieces for the sides. All four were connected together with leather straps. Steingass, 103, has 'a kind of armour.' It is N<sup>o</sup>. 50 in the *Āṭn*, i, 112, and figure N<sup>o</sup>. 49 on plate xiii. It is also shown in Egerton, plate ix, and again on p. 144. The specimens in the Indian Museum are N<sup>o</sup>. 364 (p. 103), 450, 452 (p. 112), 569, 570 (p. 119), 587 (p. 124), 707 (p. 135), 764 (p. 144).

*Zirih*. — This was a coat of mail with mail sleeves, composed of steel links (*Dastūr-ul-Inshā*, 228). The coat reached to the knees (W. Egerton, 125, note to N<sup>o</sup>. 501). It is N<sup>o</sup>. 57 in the *Āṭn*, i, 112, and N<sup>o</sup>. 46 on plate xiii of that volume. There are six examples in the Indian Museum—W.E. 361, 362 (p. 103), 453 (p. 112), 591, 591 T (p. 125), 706 (p. 135). Apparently, judging from the plate in the *Āṭn*, the *baktar* (fish scales) or the *chahār āṭnah* (cuirass) was worn *over* the *zirih*. W. H. 'Tone, "Maratta People," 61, note, gives a word *beuta* as the Mahratta name for the chain-mail shirt that they wore. I cannot identify or trace this word.

*Jaibah*. — Blochmann, *Āṭn*, i, 111, N<sup>o</sup>. 56, and his note 4, says it was a general name for armour. He gives no figure of it. Erskine, "History," ii, 187, has *jaba*. Steingass, 356, says it is from the Arabic *jubbat*, and spells it *jubah*, a coat of mail, a cuirass, any kind of iron armour. The word is used in the '*Ālamgir-nāmah*, 245, l. 7: — "*Tan ba zeb-i-jabah o joshan pairāstah*" -- "body adorned with the decoration of *jabah* and *joshan*." It is also used in *Aḥwāl-ul-Khawāqin* (c. 1147 H.), fol. 164a, in the form *jaibah*. Some variety of the *jaibah* is spoken of in the *Aḥbarnāmah*, Daftar II, p. 249, line 4 (Lucknow edition), where we are told that a Rajput of distinction in the garrison of Chitor wore a *jaibah-i-hazār-mukhī*. Apparently it was covered with small studs or knobs (*mikh*).

Other items of body armour (*Dastūr-ul-Inshā*, 228) were the *joshan*, the *jihlum*, the *angarkhah*, the *daghlah*. In

other authorities we also meet with the *jāmah-i-fatāhī*, the *chihilqad*, *ṣādiqī*, the *koṭhī*, the *bhanjū*, and the *salhqaba*. Of the last, the *salhqaba*, *Āṣn*, N<sup>o</sup>. 66, we have no figure, and I am unable to identify it, as I have never seen the word elsewhere. Other words which have defied identification are *harhai*, as I read it (B.M. 6599, fol. 162a; B.M. 1641, fol. 37a), and three articles in the *Dastūr-ul-Inshā*, p. 228, which I read *sūbī*, *malk*, and *masarī*. We have also the *kamal*, the *ghughwah*, the *kantḥā-sobḥā*. Finally, there were the *dast-wānah* or arm-pieces, the *rānak* or greaves, and the *mozah-i-āhanī*, a smaller pattern of leg-piece.

*Joshan*. — This is N<sup>o</sup>. 59 of the *Āṣn*, list, p. 112, and is figured as N<sup>o</sup>. 48 on plate xiii. It appears to be a steel breastplate extending to the region of the stomach and bowels. Blochmann, p. xi, calls it an armour for chest and body; Steingass translates more vaguely 'a coat of mail.'

*Jihlam*. — According to the dictionary (Shakes., 825), this is the Hindī for armour, coat of mail, vizor of helmet; but I do not know what was its special nature or form. Steingass, 405, has *chahlam*, a sort of armour; also *chihaltah*, a coat of mail. Kām Rāj, 58b, has a passage — "Mīr Mushrif came quickly and lifted his *jihlam* from his face." This makes the word equivalent to vizor. It is not in the *Āṣn*.

*Angarkhak*. — Hindī for a coat, possibly identical with that sometimes called an *alkhālīq* (a tight-fitting coat). Probably this coat was wadded so as to turn a sword-cut. It is N<sup>o</sup>. 63 of the *Āṣn*, i, 112, and figure N<sup>o</sup>. 52 of plate xiv, where we see it a long, loose, wide coat worn over the armour.

*Daghlak* or *Daghlā*. — The second of these is the Hindī form of the word. It was a coat of quilted cloth.

*Jāmah-i-fatāhī*. — This word is employed in the *Akbar-nāmah* (Lucknow edition), ii, 89, line 3. According to the editor's note it is "a robe which on the day of battle is



put on beneath the coat of mail, and on it extracts from the Qurān, such as *Annū fataḥnā*, are inscribed." Steingass, 351, defines it as "a fine silken robe." The coats worn by the Khalifah's men in the Sūdān, and now at the United Service Institution, must be specimens, as they have words embroidered or sewn on to them.

*Chihilqad*. — This is N<sup>o</sup>. 67 of the *Āṭn*, 112, and is shown as figure N<sup>o</sup>. 54 on plate xiv. Muhammed Qāsim, *Atwāl-ul-Khawāqin*, 161b, spells it چلقت, *chalqat*. It was a doublet worn over the armour, and possibly identical with the *chiltā* or *chihal-tah*, literally forty-folds, Shakespear, 881; Steingass, 398).

*Ṣūdiqī*. — *Āṭn*, 112, N<sup>o</sup>. 62, and N<sup>o</sup>. 51 on plate xiv, a coat of mail something like the *joshan* in shape, but with epaulettes.

*Koṭhi*. — We have this in the *Āṭn*, 112, N<sup>o</sup>. 61, and it appears on plate xiv, N<sup>o</sup>. 50, as a long coat of mail worn under the breastplate and opening down the front.

*Bhanjū*. — This is N<sup>o</sup>. 64 of the *Āṭn* list, i, 112, but I have never seen the word anywhere else; it must be a Hindi word, but it is not in Shakespear's Dictionary. The only figure is the one reproduced from Langlès by Egerton, N<sup>o</sup>. 9 on plate i, opposite p. 23. This might be almost anything; the nearest resemblance I can suggest is that of a sleeveless jacket.

*Kamal*. — This word is literally 'a blanket,' and from it the corps known as the *kamal-posh* (blanket-wearers) derived its name. The word seems to have had the secondary meaning of a cuirass or wadded coat, possibly made of blanketing on the outside. There were wadded coats of quilted cotton, as well as of wool, which would stand the stroke of a sabre. Some stuffed with silk refuse were considered capable of withstanding a bullet (*Seir*, i, 143, note 105). This sort of protection was very common. "Almost every soldier in the service of a native power has his head secured by many folds of cotton cloth, which not only pass round but likewise over it and under the chin;

and a protection for the back of the neck is provided of similar materials. The jacket is composed of cotton thickly quilted between cloths, and so substantial as almost to retain the shape of the body like stiff armour. To penetrate this covering with the edge of the sword was to be done only by the practice of cutting." (Valentine Blacker, "War," 302).

*Ghughwah.* — This must, from its position in the *Āṣṇ* list, N<sup>o</sup>. 55, be some kind of armour, but I cannot identify the word, which is of Hindī form. In plate xiii, N<sup>o</sup>. 44, the *thing* is shown as a long coat and cowl of mail, all in one piece. In Egerton's plate (N<sup>o</sup>. i, figure 4) it is something quite different, of a shape which it is difficult to describe, and for which it is still more difficult to suggest a use. The word seems to have some affinity to *khoghā* or *ghughā* (see *ante*). It represents the Eastern Hindī form of *ghoghā*, following the usual rule of vowel modification, thus: II. II., *ghoṛā*; E. H., *ghurwā*, 'a horse.' There being also a slight indication of the diminutive in this form, *ghughwā* would be a small *ghoghā*. There is a chain epaulette shown in one of the plates in Röckstuhl and Gille, which suggests the shape of the *ghughwā* figured by Egerton, and possibly that was its purpose.

*Kanthā-sobhā.* — This is N<sup>o</sup>. 70 in the list in the *Āṣṇ*, 112, and, as we can see from figure 7 on plate i of W. Egerton's catalogue, it was a neck-piece or gorget. N<sup>o</sup>. 69 (*rānak*) and N<sup>o</sup>. 71 (*mozah-i-āhanī*) are both worn by the man and not the horse; then why does Blochmann, in his note, suggest that N<sup>o</sup>. 70 (*kanthā-sobhā*) was attached to the horse's neck? The derivation is from *kanthā* (Shakes., 1616) a necklace, and *sobhā*, *id.* 1338, ornament, dress, decoration.

*Dastwānah.* — This was a gauntlet, or mailed glove, with steel arm-piece. It is N<sup>o</sup>. 68 of the *Āṣṇ*, 112, and is shown as N<sup>o</sup>. 55 on plate xiv. The specimens in the Indian Museum are N<sup>os</sup>. 452, 453, 454, 455 (Egerton,

p. 112), 568, 570 (*id.* 119), 587, 590 (*id.* 124), 745 (*id.* 139). Three of these are shown, two on plate xii, opposite p. 122, and one on plate xiv, opposite p. 136.

*Rānak*. — In the *Āḡn* list, 112, N<sup>o</sup>. 69, appears the word *rāk* or *rāg*, which is quite unmeaning. When we turn to N<sup>o</sup>. 56 on Blochmann's plate xiv, we see that the thing itself is an iron leg-piece or greave. Now, wherever there are lists of armour in the MS. *Dastūr-ul-ʿAml*, I find a word رَاک, which is invariably shown with a fourth letter of some sort; it might be read *rātak*, *rūlak*, *rānak*, but never *rāk*. As *rān* means in Persian the 'thigh,' I propose to substitute for Blochmann's *rāk* the reading *rānak*, the diminutive ending being used to denote relation or connection, a formation like *dastak* (little hand), a short written order, fit to be (as it were) carried in the hand. The word *rānak* is not in Steingass.

*Mozah-i-ūhani*. — This "iron-stocking" is N<sup>o</sup>. 71 on page 112 of the *Āḡn*, and N<sup>o</sup>. 56 on plate xiv. It is a smaller form of the *rānak*.

*Patkah*. — I find in Ghulām ʿAlī Khān, *Muqaddamah*, fol. 38b, an epithet پتکه پوشان, *patkah-poshān*, applied to both Sayyads and horse-breakers (*chābuk-suwārān*). It appears to refer to some part of military equipment, but what it is I do not know. It is evidently used in a depreciatory sense.

Having enumerated the man's defensive armour, we go on to that of the horse. The elephant armour I will leave till we come to the special heading devoted to those animals.

*Kajim*. — This is in *Āḡn*, 112, N<sup>o</sup>. 72 (*kajem*), and is shown as figure N<sup>o</sup>. 57 on plate xiv. Erskine. "History," ii, 187, has the form *kichim*. It was a piece of armour for the hind-quarters of a horse, and was put on over a quilted cloth called *artak-i-kajim* (*Āḡn*, 112, N<sup>o</sup>. 73).

The other pieces of armour for the horse were the frontlet (*qashqah*: *Āḡn*, 112, N<sup>o</sup>. 74, and plate xiv, N<sup>o</sup>. 60) and the neck-piece (*gardani*: *Āḡn*, 112, N<sup>o</sup>. 75). Blochmann's

description of the latter (p. 112, note 3) does not seem very appropriate, as he makes it a thing which hangs down in front of the horse's chest. *Gardani*, however, is the name still applied to the head and neck-piece, the hood, of a set of horse-clothing. It is the neck-shaped piece, in figure N<sup>o</sup>. 58 of Blochmann's plate xiv, and is separately shown in Egerton's plate i, figure N<sup>o</sup>. 3. *Qashqah* is the word used in Persian for the Hindu sect-mark or *tilak*, applied on the centre of the forehead. R. B. Shaw, J. A. S. Bengal for 1878, p. 144, gives *qashqah* as the Eastern Turkī for an *animal's* forehead.

Horse trappings were often most richly adorned with silver or gold, embroidery or jewels. When so enriched they were styled *sāz-i-tilāe*, or *sāz-i-marāṣṣā*. The names of the various articles are as follows (W. Egerton, 155): *paltah* (headstall) and *inān* (reins), *zerband* (martingale), *dumchū* (crupper), *khogir* (saddle), *ustak* (shabracque), *bālā-tang* (surcingle), *rikāb* (stirrups), *shikārband* (ornamental tassels at corners of saddle). The bow or pommel of a saddle was either *garbus* (Steingass, 963) or *qāsh* (id. 947). The former word is used by Shekh Ghulām Ḥasan, (Samīn) Bilgrāmī, in his *Tazkirah* written in 1198 H. (1783); the second, by Rustam <sup>ʿ</sup>Alī, Bijnorī, in his Urdū "History of the Rohelas," written about 1803, fol. 28a. Nizām-ud-dīn (ʿIshrat, Siyālkūtī) in his *Nādir-nāmāh*, fol. 50a, speaks of *yaltang-posh* as some sort of horse equipment. I have not been able to find out what this was. The list of stable requisites can be seen in *Āīn*, i, 136.

## CHAPTER VIII.

### EQUIPMENT. — (B) OFFENSIVE ARMS; I, "SHORT" ARMS.

The cavalry seem to have carried a great variety of arms. The most relied on were those they styled the *kotah-yarūq* or short arms, that is, those used at close quarters, corresponding to the European "arme blanche." Probably the *kotāh silāh* of Budāonī, i, 460, (Ranking, 593) has the same meaning, and not as Ranking suggests that of a deficiency or shortness of weapons. These short arms may be ranged into five classes (I) Swords and shields, (II) Maces, (III) Battle Axes, (IV) Spears, (V) Daggers. Weapons for more distant attack were (A) the bow (*Kamān*) and arrow (*Tir*) (B) the Matchlock (*banduq* or *tufang*) and (C) the Pistol. Rockets were also used, but they were in charge of the artillery (*topkhānah*) and will come under that head.

Out of the wealth of weapons, a description of which follows, it is not to be supposed that the whole were carried by any man at one time; but a great number were so carried, and, in a large army, all of them were to be found in use by some one or other. The great number of weapons that a man carried is graphically depicted by Fitzclarence, in the case of a petty officer of the Nizām's service, who commanded his escort (*Journal*, 134). "Two very handsome horses with superb caparisons belong to this jamadar, who is himself dressed in a vest of green English broad cloth<sup>1</sup> laced with gold, and very rich embroidered belts. A shield of buffalo hide with gilt bosses

<sup>1</sup> By Indian writers of the 18<sup>th</sup> century broad cloth of all colours is called *sqarlāt*, سقرلات, i. e. scarlet.

is hung over his back. His arms are two swords and a dagger, a brace of English pistols, and he has his matchlock carried before him by a servant." The following satirical description from Moor's *Narrative*, 98, also shows what a number of different weapons would sometimes be carried. "Many of the sardars" (i. e. of the Nizām's army in 1791) "were in armour, and none of them deficient in weapons of war, both offensive and defensive. Two swords, a brace to half a dozen pistols, a spear, a crees, and matchlock-carbine constituted the moving arsenal of most of them. One man was mounted upon a tall, thin, skeleton of a horse, from whose shoulders and flanks depended, as a barricading, twenty or thirty weather-beaten cows' tails: two huge pistols appeared in his capacious holsters, while one of still larger dimensions, placed horizontally upon the horse's neck and pointed towards his ears, which were uncommonly long, dreadfully menaced the assailants in front. His flanks and rear were provided with a similar establishment of artillery of different sizes and calibres; one piece was suspended on each side of the crupper of the saddle, and a third centrically situated and levelled point blank at the poor animal's tail . . . . The rest of his armament consisted of a couple of sabres, a spear, a matchlock and shield . . . . He wore besides a rusty coat of mail from the lower part of which a large red quilted jacket made its appearance." The variety of weapons is again dwelt on with great effect in Wilks, iii, 135, "no national or private collection of ancient armour contains a weapon or article of equipment which might not be traced in this motley crowd" i.e. Nizām 'Alī Khān's cavalry in 1791.

### 1. Swords.

As to the mode of carrying the sword, Fitzclarence, *Journal*, 69, describing some irregular horse in the Company's service (1817), says "they have a sort of foppery with

respect to their sword-belts, which are in general very broad and handsomely embroidered; and, though on horse-back, they wear them over the shoulder." But the sword was not always carried in a belt hung from the shoulder. On plate 8 in B.M. Or. 375 (Rieu, 785), A'zam Shāh carries his sword by three straps hanging from a waist-belt. The generic name of a sword was *tegh* (Arabic), *shamshār* (Persian) or *talwār* (Hindi). The Arabic word *saif* was also used occasionally. One kind of shortsword was called the *namchah-shamsher* (Steingass 1445). It was the weapon carried by Ibrāhīm Qulī Khān in 1137 H. (1725), when he made his attack on Hāmid Khan at the governor's palace in Aḥmadābād (Gujarāt), *Mirāt-i-Aḥmadī*, fol. 179a. It is also to be found in the *Akbarnāmah*, Lucknow edition, ii, 225, second line. I have not seen in Indian works the word *palūrah* used for a sword in *Mujmil-ut-tārīkh ba'd Nādiriyah*, p. 110, line 3.

Names of the various parts are (B.M. No. 6599 fol. 84a), *teghah*, blade, *nūbah*, furrows on blade, *qabṣah*, hilt, *jūnarela* (?), *sarnāl* or *muhnāl* and *tahnāl*, metal mountings of scabbard, *kamrsāl* (the belt?)<sup>1</sup>, *bandtār* (?). The quality or temper of a blade was its *āb* (water) or *jauhar* (lustre). One name of the belt was *hamā'il* (Steingass, 430, plural of *himālat*); and Khair-ud-dīn, *Ibratnāmah*, i, 91, uses the word thus, in repeating the speech of one Daler Khān and another man to Shāh 'Ālam (1173 H.), "*fidwī az waqte kih sipar o shamsher rā hamā'il kardah-em, gāhe ba dushman-i-khud pusht na namudah*": "Since we hung from our shoulders sword and shield never have we shown an enemy our back." Another word that I have seen used for a sword-belt is *kamr-i-khanjar*, see Steingass 1049; also Budāonī, text, 441, Ranking 566.

*Shamsher*. This word when used with a more specific

<sup>1</sup> This is described in *Qanoon-e Islām*, app. XXVIII, as a belt worn by women, consisting of square metal tablets hinged together. I find it named in native authors as part of men's equipment.

meaning, was applied to the curved weapon familiar to us as the oriental sword, or as it is frequently called, the scimitar. It is purely a cutting weapon, as its shape and the small size of the grip sufficiently demonstrate.

*Dhup*. There was a straight sword, adopted from the Dakhin, of which the name was *dhup*; it had a broad blade, four feet long, and a cross hilt. It was considered an emblem of sovereignty and high dignity, and was therefore displayed on state occasions, being carried in a gorgeous velvet covering by a man who held it upright before his master. It also lay on the great man's pillow when he was seated in *darbār*, engaged in the transaction of public business. This kind of sword was conferred as a distinction upon successful soldiers, great nobles, or court favourites, (*Seir*, i, 549, note 54; i, 551, note 55; ii, 95, note 80; iii, 172, note 39). The *dhup* was also spoken of as *‘aṣṣā-shamsher*, i.e. staff-sword (*Dānishmand Khān*, 22<sup>nd</sup> Rajab, 1120 H.). Instances of its being conferred are found in the same historian (22<sup>nd</sup> Ramazān, 1119 H., twice, and 22<sup>nd</sup> Rajab 1120 H., once). Mr. Egerton, p. 117, N<sup>o</sup>. 527, note, quotes from the *Āṣn-i-Akbarī*, "Dhoup, straight blade, used by most of the Deccanees." I am unable to verify the reference; I cannot find the passage in Vol. I, (translation), and the word is not in Mr. Blochmann's index.

*Khandā*. This weapon is N<sup>o</sup>. 2 of the list on p. 112, *Āṣn*, Vol. I; and from figure 2 on plate xii it would seem to be identical with the *dhup*.

*Sirohū*. The *Maṣṣir-ul-Umarā*, iii, 152, tells us that these blades obtained their good repute from the work done with them in 1024 H. (1615), during a fight at Ājmer between Rājah Sūraj Singh, Rāthor, and his brother, Kishn Singh. "Whoever was struck on the head by these Indian blades was cleft to the waist, or if the cut were on the body, he was divided into two parts." Egerton, 105, says this sword had "a slightly curved blade, shaped like that of Damascus." There is no specimen in the India Museum. Hendley,



"Memorials of the Jeypore Exhibition," 1883, Vol. II, plate xxix, N<sup>o</sup>. 4, has a sword from the Alwar armoury, which he calls a *Shikārgah* or *Sirohi gaj bail*(?). The blade appears slightly lighter and narrower than that of the ordinary *talwār*. Evidently the name is obtained from the place of manufacture, Sirohi in Rājputānah, of which "the sword blades are celebrated for their excellence now as formerly," Thornton, 874. The town is situated in Lat 24° 39', Long. 72° 56', 360 miles S. W. of Agra.

*Patla*. This is a narrow-bladed, straight rapier, and is to be seen now chiefly when twirled about vigorously by the performers in a Muharram procession. It has a gapatlet hilt. The specimens in Egerton are N<sup>o</sup>. 402, 403, 404 (p. 110), 515 (p. 117) 613 (p. 131). There are figures of N<sup>o</sup>. 403 and 404 on p. 104 of his catalogue.

*Gupta*. In the *Afn*, i, 110, this is N<sup>o</sup>. 3, and was a straight sword having a walking stick as its sheath, the name being from H. *gupt*, concealed. See also figure 3 on plate xii of the same volume. Egerton's entries are N<sup>o</sup>. 516, 517, 518, 519 (p. 117), 641, 642 (p. 131). The head or handle in Blochmann's figure shows that the sword-stick and the fakir's crutch were closely allied in appearance, and might at times be united. The crutch is depicted in Egerton, p. 47, and again on plate xiii (opposite p. 126) N<sup>o</sup>. 639 (p. 131), which is however only of dagger length. One of these crutches played a conspicuous part in the battle of Jājau in June 1707, A'zam Shāh, one of the contenders for the throne, whirling his crutch frantically, as he stood up on his elephant to urge on his troops. Jonathan Scott, II, part IV, 34, note 4, calls it "a short crooked staff, about three feet in length, not unlike a crozier, used by fakeers to lean on when they sit, and often by persons of rank as an emblem of humility."

*Shields*. Along with the sword naturally comes the shield, the two being almost as closely connected as the arrow and the bow. A shield (A. *sipar*, H. *dhal*) was inseparable

from the sword as part of the swordsman's equipment. It was carried on the left arm, or when out of use, slung over the shoulder. The shield appears at Nos 47 and 48 in the *Āṭn*, i, 111, and is shown on plate xiii as Nos 40 and 41. They were of steel or hide, generally from 17 to 24 inches in diameter. If of steel, they were often highly ornamented with patterns in gold damascening; if of hide, they had on them silver or gold bosses, crescents, or stars. Egerton in a note to N<sup>o</sup>. 695 (p. 133) gives a description of two magnificent steel shields which once belonged to the emperor Bahādur Shāh (1707—1712). The kinds of hide used were those of the Sāmbhar deer, the buffalo, the nīlgau, the elephant, and the rhinoceros, the last being the most highly prized. Brahmans who objected to leather had shields made of forty or fifty folds of silk painted red and ornamented (Egerton, 111, note to N<sup>o</sup>. 434). More about shields can be seen in the same-work, pp. 47, 48, 49. The specimens in the Indian Museum are numerous, see Egerton pp. 111, 118, 134, 139. The curious snake-skin (*nāgphani*) shield, N<sup>o</sup>. 365 (p. 103), is not a Moghul weapon.

*Chirwah* and *Tilwah*. — According to the *Āṭn*, Blochmann, i, 252, these were the shields carried by the *Shamsher-bāz*, or gladiators, groups of whom always surrounded Akbar on the march, *Akbarnāmah*, (Lucknow edition), ii, 225, second line.

*Fencing Shields*. Following the *dhāl* or shield the *Āṭn*, i, 111, has N<sup>o</sup>. 49, the *kherah*, کھراہ, but there is no figure of it. I presume that this is the same word as گھڑہ, *girwah* (Shaks., 1695) or گھڑہ, *garwah* (Steingass, 1081), both meaning a shield. I can find no word *kherah* in the dictionaries, but it might be *gherā*, घेरा, a round, a circle (Shakes. 1759), with allusion to the form of a shield. Again N<sup>o</sup>. 50 *Pahrī*, (Āṭn, i, 111) is described by Blochmann, p. xi, as a plain cane shield. It is shown as N<sup>o</sup>. 42 on plate xiii. This must evidently be *Phari*, फरी, Hindi for a small shield of cane or bambu

(Shakes. 580). The quaint implement, *mārū* or *singauta*, made of a pair of antelope horns tipped with steel and united at the butt-ends, Egerton, p. 111 and p. 133, also the *sainti* (id. 118 and plate x), may be classed as parrying shields.

## II. The Mace.


This formidable-looking weapon, the mace (*gurz*) usually formed part of the panoply of a Moghul warrior, at any rate if he were of any considerable rank. It appears as N<sup>o</sup>. 25 in the *Āīn* list, i, 111, and varieties of it are entered under N<sup>o</sup>. 26 (*shashbur*) and N<sup>o</sup>. 29 (*piyāzi*). Blochmann gives no figure of the latter, N<sup>o</sup>. 29, and from his remarks on p. x he seems a little doubtful as to what it was. The *gurz* is shown in figure 23, plate xii, of the *Āīn* as a short-handled club with three large round balls at the end. Another kind, the *shashbur*, or lung-tearer<sup>1</sup>, figure 21, has a single head, of a round shape; and from Egerton, 23, plate i, N<sup>o</sup>. 35, I should suppose that it was made up of semi-circular, cutting blades arranged round a centre. Of the *gurz*, or mace proper, there are three examples in the Indian Museum. N<sup>o</sup>. 466 (p. 115 and plate x) is 2 feet 7 inches long, with a many bladed double-head, that is one head above the other; N<sup>o</sup>. 574 (p. 123 and plate x) has a globular head of 3 inches in diameter and a shaft of steel gilt, length 2 feet 2 inches; N<sup>o</sup>. 616 (p. 130) is 2 feet 2 inches long and has a steel shaft with a six-bladed head. Other weapons of a similar kind named by Egerton are the *Dhara*, the *Garguz* and the *Khandli-Phānsī*. The *Dhara*, N<sup>o</sup>. 468 (p. 115), has a six bladed head and octagonal steel shaft; it is 2 feet long, and came from Kolhāpūr. Of the *garguz* there are four specimens. Nos 373 and 374 (p. 108 and plate x) have eight-bladed heads and basket hilts, one is 2 feet 7 inches

<sup>1</sup> Egerton, 21, says this weapon is mentioned by Babar, but I have been unable to find the passage in P. de Courteille's translation of the "Memoirs."

and the other 2 feet 8 inches' long; N<sup>o</sup>. 467 (p. 115) is 7-bladed with basket hilt, length 2 feet 4 inches; N<sup>o</sup>. 469 (p. 115) is eight-bladed with a similar hilt, length 2 feet 10 inches. The *Khundli Phānsi*, N<sup>o</sup>. 470 (p. 115 and plate x), is 19 inches long, has a head of open scroll work, and is probably one of the Bairāgī crutches already referred to. *Phānsi* means a noose in Hindi, but I do not see the appropriateness of the name here, nor do I know what *Khundli* can mean.

The Flail (II. *sānt*) is another weapon that may be classed with the Mace. These are two specimens in the Indian Museum, Egerton Nos 62, 63 (p. 78), and one is shown as N<sup>o</sup>. 24 on plate i opposite p. 23. I should also class among maces the *Pusht-khār* or back-scratcher, *Āṭn*, i, 111, N<sup>o</sup>. 41, made of steel in the shape of a hand. It is shown as N<sup>o</sup>. 35 on plate xiii of Blochmann's volume. The same is the case with the *Khār-i-māhi*, or fishback-bone, of steel spikes projecting from each side of a straight handle, *Āṭn*, i, 111, N<sup>o</sup>. 41, and N<sup>o</sup>. 37, plate xiii. The *Gajbāg* put among weapons in the *Āṭn*, i, 111, N<sup>o</sup>. 46, and N<sup>o</sup>. 39, plate xiii, is only the common elephant goad or *ankus*.

### III. The Battle Axe.

The battle-axe (*tabar*) will be found at N<sup>o</sup>. 28 of the *Āṭn*, i, 111 and on plate xii, figure N<sup>o</sup>. 22. This figure shows a triangular blade with one broad cutting edge. When the head was pointed and provided with two cutting edges, the axe was called a *Zāghnol*, or crow's beak (id. N<sup>o</sup>. 30, and plate xii, fig. 24). A double headed axe, with a broad blade on one side and a pointed one on the other side of the handle, was styled a *Tabar zāghnol* (id. N<sup>o</sup>. 32,  plate xii, fig. 26). An axe with a longer handle, called *Tarangālah*, was also in use (id. N<sup>o</sup>. 33 and plate xii, fig. 27, see also Egerton plate i, N<sup>o</sup>. 22).

Of the *Tabar* there are seven entries 375, 376, 377 (p. 108), 711, 712, 713 (p. 137) and 746 (p. 144). There is a figure of N<sup>o</sup>. 376 on plate x opposite p. 114. The shafts of these range from 17 inches to 23 inches in length; the heads measuring from 5 to 6 inches one way and 3 to 5 inches the other way. Some of the heads are crescent shaped, and one of the shafts is hollowed and contains daggers. I omit Egerton's *Parusa* (p. 7) and *Venmuroo* (N<sup>o</sup>. 89, 90) as not being Moghul weapons. There is also a weapon styled *Basolah*, N<sup>o</sup>. 31 of the *Āīn* list, i, 111. The name sounds as if it were derived from the Hindī *basāḍa*, a carpenter's adze, but the figure, N<sup>o</sup>. 25, plate xii, looks more like a chisel than any other tool.

Silver axes highly ornamented were carried for display by the attendants in the hall of audience (Egerton, note to N<sup>o</sup>. 375, p. 108). These attendants were the *Yasāwal*, and Anand Rām calls the axes they carried *Chamchāq* (*Mirāt-ul-Istīlāh*, fol, 193b). Besides this form of the word, we find also *Chamkhag*, *Chakhmāq*, *Chakhmāgh*, Steingass, 388, 399, "a battle axe fastened to the saddle."

#### IV. Spears.

The usual generic name used for spears of all kinds was the Arabic word *sinān*, pl. *asnān*, Steingass, 60, 698. The head or point was called *sunain*, *Mirāt-i-Aḥmadi* 176a, Steingass, 704; and the butt was the *bunain*, Steingass, id. There were several varieties of this class of weapon. The cavalry, however, seem to have confined themselves to the use of the lance (*nezaḥ*), and the other kinds were used by foot soldiers and the guards surrounding the emperor's audience hall. There is also some evidence for the use, at any rate among the Mahrattas, of a javelin or short spear, which was thrown (*Journal As. Soc. Bengal*, XLVIII, 1879, p. 101). The kinds of spear mentioned in the *Āīn-i-Akbari*, i, 112, are five the *Nezaḥ*, N<sup>o</sup>. 20, *Barchkah*, N<sup>o</sup>. 21, *Sank*, N<sup>o</sup>. 22, *Sainthi*, N<sup>o</sup>. 23, and *Selarah*, N<sup>o</sup>. 24.

*Nezah*. This is the cavalry lance, a small steel head with a long bambu shaft. Steingass, 1442, has *Nezah* "a short spear, demi-lance, javelin, dart, pike." But this is not borne out by the usage of Indian writers, who by this word intend a long-shafted spear. It appears in the *Āīn*, i, 111, as N<sup>o</sup>. 20, and is shown at N<sup>o</sup>. 16 of plate xii. *Bhālā* I take to be only the Hindī equivalent for *Nezah*. Shakespear, 386, says *Bhālā* is from Sanskrit बाण, a spear about 7 cubits or 10½ feet long, a lance with a narrow head. Including *Nezah*, *Bhālā* and *spears* (unclassified), I find nine entries in W. Egerton, vizt. 463 (p. 115) 606, 607, 608, 609, 610, 611, 612 two (p. 130). Of these one has a small head and long bambu shaft; another a palmwood shaft and small triangular head; four have bambu shafts 12 to 15 feet in length, with heavy bossed butts and small heads; N<sup>o</sup>. 611, length 8 feet, head 16 inches; N<sup>o</sup>. 612 (two), length 9 feet and 9 feet 3 inches, head 21 inches.

The *nezah* or lance was so prominent a part of the Mahratta equipment that one writer Mhd Qāsim, Aurangābādī, (*Aḥwāl-ul-Khawāqin*, fol. 201a and elsewhere) instead of the usual "accursed enemy" (*ghanim-i-la'im*) calls them *nezah-bāzān*, "lance-wielders." He thus describes, fol. 205b, their mode of using the lance: "They so use it that no cavalry can cope with them. Some 20,000 to 30,000 lances are held up against their enemy, so close together as not to leave a span between their heads. If horsemen try to ride them down, the points of the spears are levelled at the assailants and they are unhorsed. While the cavalry are charging them, they strike their lances against each other, and the noise so frightens the horses, that they turn round and bolt."

As to the usual mode of wielding the spear, we see in a picture of a battle, inserted between fol. 14b and fol. 15a of B.M., Or: 3610 (Rieu, Supp. p. 54, N<sup>o</sup>. 79) showing an attack on the elephant of Raḥī-ush-shān, that the man on horseback ('Abd-uṣ-ṣamad Khān) who is attacking the prince,

held his spear uplifted above his head at the full length of his arm. In other pictures the same attitude is seen in the case of horsemen attacking horsemen.

*Barchhak*. This is a Hindī word, also spelt *Barchhā* and *Barchhī*. W. Egerton, note to N<sup>o</sup>. 461, p. 115, quoting Tod's "Rajasthan," says "the Mahratta lance is called "Birchha." This statement taken literally may be true; it is false, if taken as suggesting that the *Barchhak* is an exclusively Mahratta arm. We find the *Barchhak* in the *Āṭn* list of Moghul arms, drawn up long before the Mahrattas had been heard of as a military power. It is a well known word and weapon all over Northern India, hundreds of miles from the Mahratta country. We have it figured as N<sup>o</sup>. 17 of plate xii of the *Āṭn* (vol. I). Its distinctive feature is its being made wholly of iron or steel, shaft as well as head. See also Egerton's description, p. 123, note preceding N<sup>o</sup>. 574, of two specimens in the Codrington collection. This heavy spear could hardly have been wielded by a man on horse-back, and was no doubt confined to the infantry.

*Sānk*. This form of the word is Blochmann's transliteration, *Āṭn*, i, 110, N<sup>o</sup>. 22. According to present day pronunciation it would be *Sāng*. The second mark over the letter *kaf* is very often omitted by scribes, and thus *ś* might easily stand for *ṣ*. *Sāng*, (Shakes. 1239) is from the Sanskrit शङ्ख or शक्ति, *shanku*, *shakti*. It was entirely of iron, but according to the figure in the *Āṭn*, i, plate xii, fig. 18, it was much shorter than the *Barchhak*. On the other hand, those in the Indian Museum are 7 feet 11 inches in total length, of which the head occupies 2 feet 6 inches. They have long, slender, four-sided or three-sided heads, steel shafts, and the grip covered with velvet, (Egerton, N<sup>o</sup>. 72, p. 81, and figure on p. 79), N<sup>o</sup>. 461, two, (p. 115).

The Indian name for the modern bayonet is *sangin*. This may probably mean a little *sāng*; and is possibly formed from *sāng* by a shortening of the vowel and the

addition of the diminutive termination *ی* nasalized. The long, slender, three sided or four sided head of the *sāng* presents a resemblance to the shape of a bayonet; and in Hindī it is not uncommon, in the case of inanimate objects, to employ the feminine termination "i" as a diminutive, thus *golā*, a ball, *golī*, a bullet, *hāṇḍā* a cauldron, *hāṇḍī*, a small pot, *chakkā* a wheel, *chakkī*, a hand-mill.

*Sainthī*. This is a Hindī word, also spelt *saintī*. Shakespear, 1370, defines it as a dart, javelin, short spear, bolt. It is N<sup>o</sup>. 23 in the *Āṭn*, i, 111, and appears as N<sup>o</sup>. 19 on plate xii. The shaft is still shorter than that of the *sāng*. It is not given in Egerton. Has the name any connection with *senṭhī*, Hindī for a kind of reed?

*Selarah*. This is N<sup>o</sup>. 24 of the *Āṭn* list, i, 111, and it is figured on plate xii (N<sup>o</sup>. 20) as a spear with a head and shaft longer than those of the *sainthī* but not so long as those of the *sāng*. There is no mention of it in Egerton, and outside the *Āṭn* I have never either seen the weapon or come across the word. Possibly the word has some connection with the Hindī *sel*, سِل, a spear, said to be (Shakes. 1368) from Sanskrit शस्त्र.

*Other kinds of spears*. Four names, *Ballam*, *Pandī-ballam*, *Panjmukh*, and *Lānge* occur in Egerton as kinds of spears, though omitted from the *Āṭn*.

The *Ballam* is well-known in modern Hindī, and is defined, Shakes. 354, as a spear, pike, lance. Egerton has two specimens, Nos 27 and 28 (p. 78), which are described as having barbed heads and wooden shafts, total length 5 feet 11 inches, of which the blade takes up 18 inches. On p. 123, quoting from the Codrington catalogue, Mr. Egerton says the *Ballam* is a short spear with broad head, used by infantry.

*Pandī-ballam* (Egerton N<sup>o</sup>. 29, p. 78) is a hog-spear with leafshaped blade, and bambu shaft, total length 8 feet 3 inches (blade 2 feet 3 inches).

*Panjmukh* is described on p. 137 in a note to N<sup>o</sup>. 710,



on the authority of the Codrington catalogue, as a "five-headed spear used by the people of Guzerat." The derivation is, of course, *pañj*, five, *mukh*, head.

*Lange* is mentioned on p. 123 in a quotation from the Codrington catalogue, and it is suggested that the word is a corruption of "lance." It has a four-cornered iron head with a hollow shaft.

Other designations for a spear are also to be found in Shakespear, vizt.:

*Garhiyā*, (col. 1705), Pike, javelin, spear;

*Alam*, (1458), Spear (properly a standard or banner);

*Kont*, (1637) spear from Sans. कुन्त.

*Alam* I have heard used, but I never met with the two other words. To complete the long list I may as well add the sort of bill-hook or pole-axe, *gandāsā*, a steel chopper attached to a long pole, which is the weapon of the modern *chaukidār* or village watchman.

## V. Daggers and Knives

These were of various shapes and kinds, for each of which there was a separate name.

*Katār*, *katārah*, *katāri*. This is a Hindī word, *kaṭṭār* (Shak., 1556), probably from the same root as the verb *kāṭnā*, to cut. The translator of the *Seir* (i, 549, note 58) thus describes it, "A poignard peculiar to India made with a hilt, whose two branches extend along the arm, so as to shelter the hand and part of the arm. The blade is very thick with two cutting edges, having a breadth of three inches at the hilt and a solid point of about one inch in breadth. The blade cannot be bent and is so stiff that nothing will stop it but a cuirass. The total length is 2 to 2½ feet, one half of this being the blade." The hilt has at right angles to the blade a cross-bar by which the weapon is grasped, and it is thus only available for a forward thrust. It is named in the *Āyn*, i, 112, being N<sup>o</sup>. 10, and it is fig. 9 on plate xii. There the blade is slightly

curved; Mustapha's description corresponds perhaps more nearly to fig. 4 of the same plate, the *jamdhar*. There are about twenty five specimens entered in Egerton (pp. 102, 109, 116, 131) and five of these are shown on plates ix, x (two) and xiii (two). The blades are of various patterns, and the length varies from 9 to 17½ inches. One N<sup>o</sup>. 340 is forked or two-bladed. Yule, "Glossary" 815, refers to two from Travancore which had blades of 20 and 26 inches. Others of great length are described by Mr. Walhouse in the "Indian Antiquary," vii, 193. The *Bānk* is called in Egerton, N<sup>o</sup>. 335, p. 102, the B. *katāri*, but the figure on plate ix shows it as being like a knife and without the handle characteristic of the *kaṭār*. Stavorinus, quoted by Yule, "Glossary," 816, speaks of a dagger, the name of which he translates as *belly piercer*. No one seems to know what Indian word was intended unless it were the *kaṭār*, which may be translated the "cutter" (*quasi*, "piercer").

*Jamdhar*. This is N<sup>o</sup>. 4 in the *Āṭm*, i, 112, and figure N<sup>o</sup>. 4 in plate xii. This figure has the same handle as a *kaṭār*; but the blade is very broad and straight, while the *kaṭār* is given a curved blade. On the contrary Mr. Egerton, p. 102, and plate ix, Nos 344 and 345, shows the *jamdhar katāri* with a straight blade and a handle to be held like one holds a table-knife or a sword. The etymology of the word as given by J. Shakespear, 1790, is *jam*, from the Sanskrit मृ, death, and *dhar*, from धृ, a sharp edge. But see also Yule, "Glossary", 358, under "Jumdud" (*jamdad*).

*Khanjar*. We are told by Steingass, 476, that this is A., for dagger, poinard. There are eight specimens in the Indian Museum, Egerton, 502 to 506 (p. 116), 626, 627a, 627 (p. 131): two are shown on plate x (opp. p. 114). Most of these have doubly-curved blades, and are about 12 inches long. The *Khanjar* is N<sup>o</sup>. 5 in the *Āṭm*, i, 110; and on plate xii, N<sup>o</sup>. 5, it is shown as a bent dagger with a double curve in the blade and a hilt like a sword.

Figures Nos 5 and 7 on W. Egerton's plate vi (opp. p. 53) appear to be *Khanjār*. Mustapha, *Seir*, i, 152, note 114, says that "the *Khanjar* is a poinard, with a bent blade, peculiar to the Turks, who carry it upright and on the right side; but it is occasionally worn by both Persians and Indians, the latter wearing it on the left side and inclined." Our word "hanger" is derived from *Khanjar* (Yule and Burnell, 312). Then we have the

*Jamkhāk*, *Āṭn*, i, 110, N<sup>o</sup>. 7, plate xii, N<sup>o</sup>. 7. If it were not for the middle letter *kaf* ک, I would have suggested that this word was a misreading for *chamkhākh* چمخاخ, a battle axe (Steingass, 389), see ante, under iii, Battle Axes. The figure in the *Āṭn* shows a dagger and not an axe. — Could it be intended for *Chāqchāq*, a kind of knife?

*Jhambwah*, *Āṭn*, i, 110, N<sup>o</sup>. 9, plate xii N<sup>o</sup>. 9 and Egerton 106 (p. 82), 486—9 (p. 116), 798—9 (p. 145). He also gives figures on plate i, N<sup>o</sup>. 29 (p. 23) and fig. 17 on p. 79. The *Jambwah* is also mentioned by him on p. 124 in a note to N<sup>o</sup>. 581. Steingass, 373, only gives *jambiyah*, "a kind of arms or armour." Shakespear, 789, has "a dagger." There are also some interesting remarks by Yule, "Glossary", 357, under "Jumbeea." He inclines to a derivation from *janb*, A., the side.

*Bānk*, *Āṭn*, i, 110, N<sup>o</sup>. 8, and figure N<sup>o</sup>. 7, plate xii; Egerton, Nos 480—1 (p. 115), and note to N<sup>o</sup>. 581 (p. 124), figure 31 on his plate i, (opp. p. 23). The name evidently comes from its curved shape (बान्क, a curvature, a bend, Shakes. 275a).

*Narsingh moth*, *Āṭn* i, 110, N<sup>o</sup>. 11 and figure 11, plate xii; Egerton, fig. N<sup>o</sup>. 30 on plate i (opp. p. 23).

All four of these weapons seem of the same class as the *Khanjar*, though varying slightly in form. The same may be said of the *Bichhwā* and the *Khapiwah*. *Bichhwā*, literally "scorpion", had a wavy blade. It is mentioned by Egerton, 27, and there are specimens in the India Museum, Nos 490—8

(p. 116), 628 (p. 131), and plate x (opp. p. 114). The *Khapwah*, N<sup>o</sup>. 6 in the *Āīn*, i, 110, must have been some sort of dagger; there is no figure of it on plate xii, but Egerton's plate i, N<sup>o</sup>. 28, shows it as almost identical with the *jambwah*. May it not mean "the finisher, the giver of the *coup de grâce*," from the H. verb *khapnā*, 'to fill up, to complete, as in the phrase, *den khap-gyā* "the debt has been liquidated?" The Persian word is *dashnah* (Steingass, 527). In some manuscripts of the *Akbarnāmah* (near the end of the 17<sup>th</sup> year), it is said, as Mr. H. Beveridge has pointed out to me, that Akbar when drunk ran after Shāhbāz Khān of Mālwah, and tried to strike him "with a *dashnah*, called in Hindī a *khapwah*", because he refused to sing.

*Peshqabz*. The word is from P. *pesh*, front, *qabz*, grip. It was a pointed one-edged dagger, having generally a thick straight back to the blade, and a straight handle without a guard; though at times the blade was curved, or even double-curved. The *Peshkabz* is not in the *Āīn* i, 110—112, so I presume that it was included under one of the other kinds of dagger, perhaps under *kārd*, a knife, N<sup>o</sup>. 34 and fig. 28, Plate xii. In Egerton I find twenty three examples: 346 (p. 102), 381 (p. 108), 382 (p. 109), 484—5 (p. 116), 617—625 (p. 130), 717—724 (p. 138), 760 (p. 144). Of these there are 7 straight, 4 curved, and 2 double-curved blades; the shape of the rest is not stated. On plate xiv (opp. p. 136) he shows four, and on plate xv (opp. p. 140) one of these specimens. Some of the hilts have guards to them, others have none. N<sup>o</sup>. 624 is like the *khanjar* in the *Āīn*, fig. 6, plate xii, N<sup>o</sup>. 721 something like the *jambhwah*, fig. 8, same plate, and the others, Nos 712, 720, 760, more like the *kārd*, or knife, fig. 28, same plate.

*Kārd* This was like a butcher's knife and kept in a sheath. It was more especially the weapon of the Afghān. For an example, see Egerton N<sup>o</sup> 750 (p. 144) and the figure on plate xv, where the total length is 2 feet 6 inches, and that of the blade alone 2 feet. This was the sort of

weapon with which, on the 8<sup>th</sup> October 1720, Mir Haidar Beg, Dughlāt, assassinated Sayyad Husain 'Alī Khān, Mir Bakhshī, in the emperor's camp between Fathpur Sikrī and Amber (Jaipur), Mhd Qāsim, Lāhorī, *'Ibratnāmah*, I.O.L. N<sup>o</sup>. 252, fol. 348. The author of the *Jauhar-i-Šamsām*, fol. 138a, calls the weapon then used a *chāqchaq-i-wilāyatī*. This word is related to چاقو, a knife, (Steingass, 386, from Turkish) We have also in the *Āḡn*, i, 111, the *gupti-kārd*, or knife concealed in a stick (N<sup>o</sup> 35, and plate viii, N<sup>o</sup> 29), the whip-shaped knife, *qamchi-kārd* (N<sup>o</sup>. 36 and plate xiii, N<sup>o</sup>. 30), and the clasp-knife or *chāqu* (N<sup>o</sup>. 37 and plate xiii, N<sup>o</sup>. 31).

*Sailābah-i-Qalmāqī* was the name for the knife used by the men from Kāshghar; it was as long as a sword, had a handle made of a fish-bone called *sher-māhi* (lion-fish), and was worn slung from a shoulder belt, Ashob, fol. 172b, 178b.

## CHAPTER IX.

### EQUIPMENT. — (C) OFFENSIVE WEAPONS; II, MISSILES.

I exclude from this heading what is generally classed as artillery, weapons of attack which were not carried by the individual soldier nor discharged by him without assistance. The three kinds of weapon included are I, Bows and arrows; II, Matchlocks; III, Pistols. Of these the first was without comparison the favourite weapon, the cavalry nearly all carried it, and the Moghul horsemen were famed for their archery. It was feigned that the Bow and arrow were brought down straight from Heaven, and given to Adam by the archangel Gabriel. Weapons were estimated in the following order. The sword was better than the dagger, the spear better than the sword, the bow and arrow better than the spear, (*Risālah-i-tir o kamān*).

The use of the bow persisted throughout the 18<sup>th</sup> century, in spite of fire-arms having become more common, better made, and their handling better understood. Nay, somewhat to our astonishment, we read in W. Forbes Mitchell's "Reminiscences of the Great Mutiny," p. 76, that he saw the bow used by the rebels at the second relief of Lakhnau in Nov. 1857. "In the force defending the Shah Najaf, in addition to the regular army, there was a large body of archers on the walls, armed with bows and arrows, which they discharged with great force and precision, and on a serjeant of the 93<sup>rd</sup> raising his head above a wall, an arrow was shot right through his feather bonnet. One man raising his head for an instant above the wall got an arrow right through his brain, the shaft projecting more than a foot

out at the back of his head. In revenge the men gave a volley. One unfortunate man exposed himself a little too long and before he could get down into shelter again, an arrow was sent right through his heart, passing clean through his body and falling on the ground a few yards behind him. He leaped about six feet into the air, and fell stone-dead."

One would have thought this to be the last occasion on which the bow was used in serious fighting by any but the merest savages. But Mrs. Bishop, writing from Chefoo on the 18<sup>th</sup> Oct. 1894 (St. James' Gazette, Dec. 1<sup>st</sup> 1894), speaks of meeting large numbers of carts "loaded with new bows and arrows, with which to equip the Banner men of the capital (Pekin)." And this in the days of Krupp and Maxim guns!

The Matchlock, a cumbrous and probably ineffective weapon, was left mainly for the infantry. Pistols seem to have been rarities.

### I Bows.

The Moghul bowmen were considered to be especially expert with their weapon; as Bernier says, 18, "a horseman shooting six times before a musketeer can fire twice." The word *oqchi* quoted by Horn, 108, from the *Akbarnamah*, is hardly to be found in the later writers, those of the 18<sup>th</sup> century; an archer is styled by them a *Tir-andāz* (literally, arrow-thrower), not *oqchi*<sup>1</sup>. But that word is used by Anand Rām once in reference to Ahmad Abdālī's first invasion in 1161 H. (I.O.L. N<sup>o</sup>. 1612, fol. 70b), though there the scribe has spelt it *aunchi*. Shakespear, 219, has what he classes as a Hindī word, *opchi*, defined as "A man armed with weapons or clothed in mail." May this not be a corruption of *oqchi*, an archer? This word, *opchi*, is used by Shridhar Murlīdhar in his poem on Farrukhsīyar, line 594, (Journal A.S.B. (1900) Vol. LXIX, i, 14, 39):

<sup>1</sup> Pavet de Courteille, Dict., 68, **اوقى**, an arrow

पिले ओपची तोपची तोपी घनेरे

*Pile opchī topchī topo ghanere.*

“Gathered archers, gunners, guns, without end.” Of course, this may be simply the reduplication so common in Indian vernaculars, such as *khānā-wānā*, food, *pānī-wānī*, water. Mīr Qāsim, Aurangābādī, *Ahwāl-ul-khawāqin*, 288a, and a rather later writer, Khair-ud-dīn (c. 1203 H.), *Ibratnāmah*, 105, have *kamāndār* (bow-holder) for archer.

*Charkh*. In the *Jahān kushāe Nādirī* of Mirzā Mahdī, p. 233, (year 1151 H.) we have a reference to the *Charkhchī-bāshī*, or head of the *charkh* men. W. Jones, “Nader Chāh”, ii, 66, renders this by “*maitre de l’artillerie*”, and is followed by the German translator, 293. Steingass has neither *charkhchī* nor *charkhchī-bāshī*. *Charkh* has many meanings: among them being “a wheel,” “a cart,” “a crossbow.” Here I suppose we ought to render *charkh* by “cross-bow”, and not by “artillery.” *Charkhchī* is to be found in the *Mujmil-ut-tārīkh ba’d Nādirīyah*, p. 95, line 13.

*Kamān*. The Moghul bow (*kamān*) was about 4 feet long, and generally shaped in a double curve. The bow was of horn, wood, bambū, ivory, and sometimes of steel (Egerton, 81, note to N<sup>o</sup>. 80). Two of these steel bows, in the Emperor of Russia’s collection at Zarkoe Selo, belonged to the emperor, Bahādur Shāh (1708—1712); they bear verses in his honour and are covered with rich gold damascened work (Egerton, 114, note to N<sup>o</sup>. 457). The grip was generally covered with velvet. Mr. Egerton, 144, describes the Persian bow in detail, and the same description applies, there can be little doubt, to the bows used in India, for there they copied everything Persian, and in fact many of the principal officers were themselves Persians.

Mr Egerton says “the concave side of the bow (the convex when strung) was lined with several strings of thick catgut to give it elasticity and force. The belly is made of buffalo or wild goats’ horn, jet black and of a



fine polish; glued to this is a thin slip of hard, tough wood. The ends are fashioned to represent snakes' heads. The horn is left plain, while the wooden back is decorated with rich arabesques of birds, flowers or fruit intermingled with gilding." Captain Thomas Williamson, "Oriental Field Sports", 87, describes thus the construction of the Indian bows kept for show or amusement, and also carried by travellers. They were of buffalo horn in two pieces curved exactly alike, each having a wooden tip for the receipt of the string; their other ends were brought together and fastened to a strong piece of wood that served as a centre and was gripped by the left hand. After being neatly fitted, they were covered with a size made of animal fibres, after which very fine tow was wrapped round, laid on thin and smooth. They were then painted and varnished.

*The notch.* The notches at the ends into which the string was fixed were called *goshah* (Steingass, 1104), literally "corner," also *sūfār* (*Dastur ul Inshā*, 228, Steingass 709). The latter word is used in *Ahwāl-ul-khawāqin* (c. 1147 H.), fol. 12a.

*The string.* This was called either *zih* or *chillah*. Hindi names are *rodā*<sup>1</sup>, Shak., 1195, catgut, a sinew used as a bow-string, and *panach* or *panchak* (id 552, 553). Bow strings were made of strong threads of white silk laid together until of the thickness of a goose quill. Whipping of the same material was then bound firmly round for a length of three or four inches at the centre, and to this middle piece large loops of scarlet or other colour were attached by a curious knot. These gaudy loops formed a striking contrast to the white silk (Egerton, 144). Captain Williamson, on the contrary, says, p. 87, that the string was composed of numerous thin catguts laid together without twirling, then lapped with silk in the middle and at the ends.

*The finger stall.* This was called *zihgir* (Steingass 631),

<sup>1</sup> *Rodā*, a bow string, is in Steingass, 592. Is it Persian or Hindi or both?

bow-string holder, or *shast* (id. 743). It was also styled *Shast-āwez* (Anand Rām, *Mirāt-ul-Iṣṭilāḥ*, fol. 155b, 182a). Of this last the etymology would be *shast*, the thumb, *āwez*, attached or fastened to, that is, a thumb-stall. Blochmann, *Āṣn*, i, 111, N<sup>o</sup>. 42, and note 3, says the *shast-āwez* was a weapon resembling the *giriḥ-kushā*, N<sup>o</sup>. 43, that is, a kind of spear. He has no figure of it. May he not have been mistaken, and is not Anand Rām's direct assertion to be preferred?

The bowman drew with his thumb only, the bent forefinger being merely pressed on one side of the arrow nock to secure it from falling, or as Dr. Weissenberg (quoting v. Luschau) says, p. 52, the forefinger was pressed on the nail of the thumb to strengthen the pull without increasing the exertion. To prevent the flesh being torn by the bow string the *zihgīr* had been invented (Egerton, 114). It was a broad ring, and according to a man's rank and means was of precious stone, crystal, jade, ivory, horn, fishbone, gold or iron. A very valuable *zihgīr*, part of the Lāhor booty, one that had belonged to Lord Dalhousie, is described in the "Daily Telegraph" of the 10<sup>th</sup> November 1898. It was formed of a single emerald and was 2½ inches across at the widest part and 1½ inches in depth. It bore an inscription which is thus translated: "For a bow ring for the King of Kings, Nādir, Lord of the Conjunction, from the Jewel House it was selected, 1152" (= A.D. 1739). From the date and the wording of this inscription it is to be inferred that it was part of the spoil carried off from Dihli. How it found its way back to Lāhor we do not know. Sometimes two thimbles were worn instead of a *zihgīr*, on the first and second fingers of the right hand. Upon the inside of this ring (the *zihgīr*), which projected half an inch, the string rested when the bow was drawn; on the outside the ring was only half the breadth, and in loosing the arrow the archer straightened his thumb, which set the arrow free. (Egerton, 114, quoting the *Book of Archery*,

136). By the use of the ring the distance to which an arrow could be shot was increased. But its use required skill and practice; the Hindūs used instead a thumbstall of leather (*Mirāt-ul-Iqtīlāḥ*, fol. 155b). These rings with a spare string were usually carried in a small box suspended at the man's side (Egerton, 114). Dr. S. Weissenberg, of Elisabethgrad, Russia, has devoted an article to these rings in the *Mittheilungen der anthropologischen Gesellschaft in Wien*, Band XXV (1895) pp. 50—56, where he gives figures of eight of them. He divides them into two classes 1) cylindrical, 2) with tongue-like projection. Those described by him are of bone or stone, and six out of thirteen were found in the ruins of Sarai, a former capital of the Qipchāq. See also a thumb ring of ivory (now in the Nuremberg museum) figured on the plate at p. 887 of A. Demmin, "Die Kriegswaffen", 4th ed., 1893.

*Takhsh kamān*. This is N<sup>o</sup>. 13 of the *Āṣn* i, 110, and it is described by Blochmann, p. v, as a small bow. It is shown in figure N<sup>o</sup>. 12 of plate xii. Steingass, 288, defines *takhsh* as a cross-bow, an arrow, a rocket.

*Kamān-i-gurohah*. This was a pellet-bow, identical, I presume, with the modern *gulel*, with which boys scare birds from the ripening crops. It is N<sup>o</sup>. 38 in the *Āṣn* i, 111 and appears as N<sup>o</sup>. 32 of plate xiii. Steingass, 1085, has for *guroha*, a ball or spherical figure.

*Gobhan*. The sling, *Āṣn* i, 111, N<sup>o</sup>. 45 and plate xiii, N<sup>o</sup>. 38, may as well be included here. The form in Shakespear 1727, is *gophan*. Khāfī Khān, ii, 656, uses the word *sang-i-falākhan* for the slings brought by the villagers who assembled in 1710 to aid in the defence of Jalālābād town against the Sikhs led by Bandah. Steingass, 936, has فلاخن, فلاخن, فلاخنک, *falākhan*, *falākhān*, *falāsang*, a sling.

*Kamthah*, *kamanth*. This is the long bow of the Bhils. We find it named in the *Āṣn* list, i, 111, as N<sup>o</sup>. 39 under the first form; the second is that used by Anand Rām, Mukhlis, *Mirāt-ul-Iqtīlāḥ*, fol. 184b. Blochmann, p. x, in

describing fig. 33 of his plate xiii confounds the *kamṭha* with the *Kamān-i-guroha* or pellet bow. I think this must be wrong. Steingass, 1051, has a word *kamnait*, an archer, which he thinks might be from P. *kamān*, bow, *plus* Sanskrit, *netā*, owner. The word might, with more probability, be connected with the above words *kamṭha* or *kamanth*, just as *dhalait*, a man with a shield, comes from *dhāl*, a shield; or *gorait*, a watchman, from *agornā*, to watch. According to Shakespear, 2258, *kamthā* is Hindi for a bow of bambu.

The Bhils held the bow by the foot, drawing the string (*chillah*) with the hand, and shooting so strongly that their arrows could penetrate an elephants' hide W. Egerton, 75, quoting Tod's "Rajpoot Tribes" (a reference which I have failed in verifying) says the principal weapon of the Bhils was the *kampli* or bambū bow, with a string made of a thin strip of the elastic bark of the bambu. In their quiver were sixty barbed arrows each a yard long, those intended for striking fish having heads which came off the shaft on striking the fish. A long line connected this head and the shaft, so that the shaft remained on the water by way of a float.

*Nāwak*. This was a pipe through which an arrow was shot. As I understand it, this was either a cross-bow, or formed in some way a part of the ordinary bow. It was not, I think, a mere blow-pipe, like those used by the Malays for their poisoned arrows, as mentioned by Egerton, 97, 98, Nos 263—268. Those specimens of the pipe are 6 feet 6 inches to 7 feet 6 inches long, and the arrows used with them 12 inches long. The *nāwak* is N<sup>o</sup>. 14 of the *Āṣṇ* list, i, 110, but there is no figure of it. The weapon was known at Farrukhābād in the 18<sup>th</sup> century (Journal A. S. B., XLVII, 331). Steingass 1382, has *nāo*, a trough, a pipe, and *nāwak*, dim. of *nāo*, a small arrow, an arrow for shooting birds, with notch on side; a tube through which an arrow is projected; a cross-bow; a reed or anything hollow.

*Tufak-i-dāhan.* The *Āṭn* has also a blow-pipe, which it calls *tufak-i-dāhan* (lit. mouth-tube), N<sup>o</sup>. 40, i, iii and N<sup>o</sup>. 34, plate xiii. Steingass, 314, defines this as a tube for shooting clay balls through by force of the breath.

*Arrows.* The arrow (*ṭir*) is given at N<sup>o</sup>. 15 of the list in the *Āṭn* i, 110, and it is shown as fig. 14a on plate xii. Another name, *sihām* is found in the *Mirāt-i-ʿĀlam*, fol. 178a; it is the plural of *sahm*, an arrow, Steingass, 710; see also Lane, "Lexicon," 1154, *sahamahu*, iii. Captain Williamson, "Oriental Field Sports," 87, says that in Bengal there were two kinds of arrow shafts, the common kind made of reeds, and those used against tigers, made of wood. To the first kind the heads were attached by resin, in the second kind, a hole was bored and the head while red-hot was forced into it. Some arrows in the India Museum are 2 feet 4 inches long (Egerton 130, N<sup>o</sup>. 604). One as long as 6 feet, obtained at Luckhnow in 1857, must have been used with a large bow. The names of the parts of an arrow were for the shaft<sup>1</sup> P. *kilk*, lit. reed, Hindī, *sārī* (Shakes. 1285, also the name of a kind of reed); for the head, P. *paikān*, H. *bhāl*; for the feathers, P. *par*. The feathers were frequently black and white mixed (*ablaq*). Ordinarily the head was of steel, but the Bhils used arrow-heads of bone.

*Tukah, Tukkah.* — This was the name of an arrow without a head. One was said to have been fired in anger by Āzam Shāh at his principal general, Zu'lfikr Khan, at Jājau on the 18<sup>th</sup> June 1707, - Yaḥyā Khān, fol. 1136. Steingass, 819, explains the word as "an arrow without a point, but with a knot at the end."

In the 18<sup>th</sup> century the kinds of arrows in use among the

<sup>1</sup> In Budāonī (Printed Text, i, 418, l. 3) there is an expression, *katibah-i-bāsh*, which Blochmann marked as doubtful in his copy (now in my possession), without suggesting any alternative; Ranking, 537, substitutes *kafāh-i-bās*, and translates "bamboo shaft." I cannot find *katah* in the dictionaries, Persian or Urdū, unless it be a form of *kaṭh*, "wooden." If so, "wooden-bambu" seems an odd combination.

Pathans of Farrukhābād (Journal A. S. B., XLVII, 332) were 1) *Lais*, Shakes., 1809, twig, practising arrow, 2) *qalandara*, 3) *kohar-tarāsh*, 4) *ghera*, broad-headed, 5) *nuktah*, or perhaps *na-katṭa*, headless arrow, lit. non-cutting; compare Egerton, 137, note preceding N<sup>o</sup>. 710, as to the blunt, heavy arrow used in Sind, 6) *thūth*, or perhaps better, *thonth*, Shakes. 743, H. for beak, bill, 7) *ankri-dār*, with a bent head, shaped like a saddle-maker's needle (*ankri*, a hook), i. e. barbed. In his time (1780—1807) Captain Williamson, 87, found some very broad arrow heads in use in the west of Bengal, towards Bahār. There was one of crescent shape more than four inches across at the barbs. Though they did not penetrate easily, yet when they happened to graze a limb, they cut desperately. When discharged among bodies of troops they were found to do amazing mischief. The following names of arrows are found in *Dastūr-ul-Inshā*, 228, 1) *gherah*, broad-headed, 2) *do muhānah*, two pointed or barbed, 3) *tarah-i-māh*, fullmoon or circular head, 4) *tarah-i-halāl*, crescent shaped head, 5) *tarah-i-bādām*, almond-shaped head, 6) *tarah-i-toko?*, 7) *sih-bhālāh*, three-spear headed, i. e. trident-shaped, 8) *tarah-i-khornī*, 9) *tarah-i-khār*, thorn-shaped, 10) *tarah-i-khāki*, Shakes. 974, epithet of a kind of arrow, what kind he does not say. James Fraser, *Nudir Shah*, 143, note, thus describes the arrow used for practising at the earthen target described a little further on. "The arrows for this exercise have the iron part quite round, about four fingers long, of the size of the reed until near the point, where they are somewhat thicker, from which part they taper gradually to a sharp point. The length from the thickest part to the point is from a quarter to one inch."

*Symbolical use of arrows.* — The pagan Arabs used arrows in a game of chance, Hughes, "Dict. of Islam," p. 309, under *Al maisir*, الميسر. Divining by arrows was forbidden by Muḥammad, see Sale's "Preliminary Discourse", section v, and the Qurān, v, where the word used is

*salmun* (singular) *azlāma* (plural), an unfeathered, unpointed arrow. The mode of procedure is set out in E. W. Lane's Lexicon, p. 1247, under *zalamun*, "he cut off", section viii. The practice, however, survived in spite of the prohibition; and in 1544 we find Humāyūn getting into trouble with Shāh Tahmāsp on this account. He marked twelve of his best arrows with his own, and eleven inferior ones with Tahmāsp's name-Erskine. "Baber and Humāyūn," ii, 289.

Shooting an arrow into the air is said by Portuguese writers to have been a recognized mode of declaring war in the Vijayanagar state and Malabar. The particular instance is of 1537 at Diū, where Bahādur of Gujarāt ordered an arrow to be shot into the air as a declaration of war - Whiteway, "Portuguese in India", 249, note 1, on the authority of Castanheda, ii, 16 (reprint of 1833) and Correa, iv, 708, "Lendas da India", 4 vols., 1858-61. I have not met with mention of this practice in any native author, and Major J. S. King informs me that he knows of none. Perhaps it was of Hindu origin.

At the same place Mr. Whiteway mentions the gift of an arrow from the King's quiver as a security for peace. The King's quiver was also used as a symbol of authority (Whiteway, *loc. cit.*). The instance given is from the *Mirāt-i-Sikandari*, where Humāyūn in 1537 released Bahādur Shāh's minstrel, and bound his own quiver round the man's loins. Clothed with this authority, every prisoner that the minstrel claimed as his relation was released (Bayley, "Gujarāt", 389). Another instance of this practice is to be found in the *Tārīkh-us-Sind* of Muḥammad Ma'sum, under the year 924 H. (1518), where Shāh Beg, Arghūn, gave an arrow to the *qāṣi* of Taṭṭah (Malet, p. 80).

*Quiver*. The Persian name is *tarkash*: but I have found the Arabic word *ja'bah* used once on fol. 59b of the *Farrukhnāmah* of Shekh Muḥammad Mun'im, Ja'farābādī (4th year of Farrukhsiyar). It was generally a flat case, broad at the mouth, one side straight and the other sloping to a

point, provided with a strap for carrying over the shoulder. This broad shape is due apparently to the fact that the quiver was used to hold the bow as well as the arrows, see plate xvii in B. M. Addl. 5254 (Rieu, 780), and the plate in Valentyn, opposite iv, 304. There must have been, however, separate bow-cases, *qirbān*, for they are named as well as the *tarkash*, or quiver, in Kāmwar Khān's entry of the 21st Zu'l Qa'dah 1131 H. In the India Museum are five specimens, Egerton, Nos 367, 369 (p. 108), 460 (p. 115), 601, 602 (p. 130). Of these one is of an unusual shape, namely, cylindrical. Common quivers were covered with leather, more costly ones with blue or red velvet, and these were often embroidered on one side in gold or silver. These covers sometimes were applied to strange uses. During Humāyun's exile in Persia (1544), Shah Tahmāsp folded up his carpet, so that no one could share any portion. Humāyun would thus have been forced to sit on the bare ground, when one of his followers took off the ornamented cover of his quiver, tore it open and spread it as a seat for his master, Erskine, "Baber and Humāyūn", ii, 294. The quiver is N<sup>o</sup>. 16 of the *Āṭīn* list, i, 110, and it appears as figure N<sup>o</sup>. 15 on plate xii. One of a slightly different shape from the usual pattern is given in Egerton's plate i (p. 24), copied from that in Langlès' "Monuments." Here the quiver is the same width all the way down, having one side straight and the other shaped in two crescent-like curves.

*The Leather Guard (Godhu).* This is mentioned in Egerton, 114, and it was worn on the left arm. That is, I suppose, if the shooter were not in armour, and thus already provided with a mailed glove and steel arm-piece. Hansard, "Book of Archery", 137, speaks of one as "a quilted half sleeve of common velvet or fine cloth, which protects the arm from being bruised by the chord in its return". The word *godhu* I have not been able to trace. Two Central Asian arm-guards, one of bone and one of iron, are figured



by Weissenberg, l. c. p. 51. They are now in the Ethnographical Museum at St. Petersburg.

*Paikān-kash*. This word is from *paikān*, arrowhead, *kash*, root of *kashidan*, to draw out. The implement was shaped like a pair of pliers, and as its name implies, was used to extract arrow heads from the body. It is N<sup>o</sup>. 19 of the *Ājn* list, i, 110, and figure N<sup>o</sup> 146 on plate xii. The *tirbardār*, N<sup>o</sup>. 18, (if the reading be correct) was another instrument for the same purpose.

*Target*. This was the *تجد*, literally, heap, Steingass, 384, *todah*, Shakes., 700, *tudah*. The latter is the present Indian pronunciation of the word. To secure a more perfect use of the bow and arrow it was usual to erect near an officer's tents a mound of earth, into which he or his men shot a certain number of arrows every day. It is referred to *en passant* by W. Egerton, 106, as a practice of the Rajputs, but its use was general and not by any means confined to them. For instance, we find this target in use by Nādir Shāh, who shot five arrows into one every afternoon. It is thus described by James Fraser, *History of Nādir Shāh*, 143, note, "*Khak Towda* is a heap of fine mould well sifted and beat strongly in between two stone walls. 'Tis five foot high, three feet thick, and from three to four feet broad. The front of it is very smooth and even, beat hard with a heavy trowel. One who is well skilled can shoot his arrow into to it quite to the head; whereas one that shoots ill (be he never so strong) can't put a third part in". In a general sense the word for a butt or target, or the object aimed at, was *hadaf* (Steingass, 1492).

*Modes of Shooting*. We are told in the *Risālah-i-tir o kamān* that in archery there were twelve maxims to be obeyed. Of these three required firmness, (1) Hold the grip of the bow tight, (2) Keep the forefinger firm, (3) When the arrow is let fly, keep the advanced foot firm. Three things required easiness (1) the left side should be kept easy (2) the left foot the same, and (3) the other

fingers. Three things required straightness (1) the body should be erect (2) the forehead held up (3) the elbow straight. Other three things were single: (1) use one side, (2) use one eye, (3) keep both hands in one direction. An arrow could have seven faults: (1) too wide a notch, (2) the shaft to be *karm?*, (3) the head imperfect, (4) the head too heavy, (5) the top end and butt of the shaft hollow, (6) the shaft not straight, (7) the bow too stiff. In shooting at a horseman 200 yards off, you should aim at his cap, if 100 paces off, at his mouth, if 50 paces, at his saddle. By so doing you will hit him in the chest. A good archer needs to practise constantly with the *Lezam*, a bow with an iron chain instead of a string. There are three ways of gripping the bow, *Changal-i-bāz* (literally, "Hawk's claw"), *muharraḥ* (diagonally, on the slant), *ma-rabbāʿ* (square), according to the length of the shooter's fingers. The arrow should be held without moving, and the advanced foot kept flat on the ground. As you let fly at the mark, you ejaculate, "In the name of God". Shekh Allahyār Sami, *Ḥadiqat-ul-aqālīm* (ms. additions in my copy), under Bilgrām, speaks of one ʿAbd-uṣ-Ṣamad, a perfect bowman, who taught the author to shoot in three ways, 1) in the style of the master Tahirī, 2) *qabṣ-ahgar*, 3) *muḥṣṭ*. Until that time Allahyār had shot only in the mode of Bahrām.

Captain Williamson, "Oriental Field Sports", 87, says the bow was strung by placing one end under the thigh, and with both hands bringing the other end into due position, when the string was easily slipped into the groove made for it. Thirty inches of string was a common length, though some were longer. With a new bow it required a strong hand to bring the arrow up to its head.

The left hand was placed opposite the right breast, just far enough from the body to allow clear action: the butt of the arrow was pressed to the string, the fore and middle fingers of the right hand were then drawn steadily, until the head was

near the forefinger of the left hand. The bow was always held perpendicularly. Native archers rarely missed an object the size of a tea cup at sixty or seventy yards, and Captain Williamson at Lucknow repeatedly saw a man lodge an arrow in a common walking stick at that distance. The hill people of Bengal were also very expert with the bow. They would lie on their back, steadying the bow with their feet horizontally, and at a distance of two or three hundred yards send the arrow through a common water pot, not more than a foot in diameter. They could shoot kites flying, and indeed rarely missed their object.

## II. Matchlock.

This was the *tufang* (Steingass, 314) or *banduq* (id. 202)<sup>1</sup>. Great credit is claimed for Akbar in the *Ajn*, i, 113, for the improvements introduced by him in the manufacture of the matchlock. In spite of these, that weapon up to the middle of the 18<sup>th</sup> century was looked on with less favour than the bow and arrow, which still held their ground. The matchlock was left chiefly to the infantry, who occupied a much inferior position to that of the cavalry in the opinion of Moghul commanders. It was not until the middle of the 18<sup>th</sup> century, when the way had been shewn by the French and the English, that efforts were made to improve the arms and discipline of the foot soldier.

The barrels of Akbar's matchlocks were of two lengths, 66 inches and 41 inches. They were made of rolled strips of steel with the two edges welded together. Both the barrels, (*nāl*, literally, pipe, tube, Steingass, 1378) and the

<sup>1</sup> The Madras Manual of Ad., iii, 915, has a word *tupak*, a small cannon, a musket, which I have seen only once elsewhere, namely, in verse 60, line 2, of a Hindi poem on Nadir Shah by one Tilok Dās (Journal As. S. B. (1897) Vol. LXVI, Part i, p. 10). Of course, in the above form the word would represent the diminutive of *top*, a cannon. But may it not rather be the Indian pronunciation of *tufak* (St. 314, another form of *tufang*, a matchlock)?

stocks (*qundāq*, T. id. 970) were profusely decorated with the surface ornament for which India, like the rest of the East, is so justly celebrated. The longer of the two weapons could only have been used, I should say, by a man on foot. Part of the matchlockman's equipment was a prong or tripod, called *shākh-i-tufanq*, on which the gun was placed when about to be fired (*Mirāt-ul-Istīlāh*, fol. 178a). Ashob, fol. 182b, calls them *sah-pāyah*, i. e. three footed or tripods. Scaton says, i, 207, that the prong was sometimes attached to the weapon. According to Bernier, 217, the prongs were of wood.

I find in W. Egerton, pp. 83, 110, 111, 118, 124, 132, 133, 139, 145, about sixty specimens of the musket and the matchlock. The latter he calls *toredār* (Shakes., 702, H. a matchlock, from *torā*, a piece of rope, a gun-match). Thirteen of these guns are figured on plates iv (p. 51) and x (p. 111), and among the figures on p. 79. One matchlock is a miniature weapon, one a revolver with four chambers, one has a rifled barrel, five have flint, and four percussion locks, these latter obvious modern imitations of European models. The other forty-eight are types of the ordinary matchlocks. Of these the shortest is 4 feet 7 inches and the longest 7 feet in length. One, N<sup>o</sup>. 671, length 6 feet 5 inches is called a wall-piece; if so, Nos 551, 584, 585, which are longer, must be the same. Two of the specimens have octagonal barrels, a third has a barrel not only square outside but having also a square bore.

Guns of European make (*tufanq-i-farang*) were much prized, but were only found in the possession of the greatest nobles. It was with one of these, as Mhd Qāsim, Lāhori, tells us, *‘Ibratnāmah*, 352, that a slave seated behind his master, Haidar Quli Khan, Mir Ātash, shot Sayyad Ghairat Khān on the 8<sup>th</sup> Oct. 1720, in the onset made upon M<sup>u</sup>hammad Shāh's tents immediately after the assassination of the Sayyad's uncle, Husain ‘Alī Khān, Bārhab.

To the end of the Moghul period the fire arm in ordinary use was the matchlock. The flint lock was little known to them, and, of course, the percussion weapon was never seen, not having been introduced even into European armies until the 19<sup>th</sup> century (H. Wilkinson, *Engines of War*, 67). The flint lock itself does not seem to have been generally adopted in Europe until the end of the 17<sup>th</sup> century (id. 67<sup>1</sup>), and it could hardly have become generally known in the East until a hundred years later. It was not until regular battalions armed and drilled in the European manner, were entertained by the Mahrattas and the Nawab Wazir, that the flint lock could have got into the hands of Indian troops to any appreciable extent. This seems borne out by the fact that of some sixty fire-arms catalogued by W. Egerton, fifty are matchlocks, and only five fitted with the flint lock. A passage in M. Wilks, "South India", i, 278, note, also shows that in 1751 the flint lock was an absolute novelty to the native armies of Southern India. Fitzclarence, 256, writing so late as 1818 confirms this opinion. He says "The flint-lock, an introduction of the Europeans, is far from being general, and I may even say is never employed by the natives: though the Telingas, armed and disciplined after our manner, in the service of Scindiah and Holkar, make use of it. Some good flint locks, are, however, made at Lāhor". It is true that Khair-ud-dīn, *‘Ibratnāmah*, i, 105, writing of 1173 H. (1759), declares that when Rām Narāyan, deputy governor of Patnah, was defeated by Shāh ‘Ālam, he left on the field among other things six thousand flint muskets (*bandūq-i-chaqmāqī*). This can be only partially true, and even then it must be remembered that, by that time, the importation of arms through the ports on the Hugli must have become active; and what might be true of Bengal and Bahār in the above year, did not represent

<sup>1</sup> Voyle and Stevenson, *Mil. Dict.* (1876), 142, say it was invented about 1635, but not employed in England till 1677.

the condition of things in places farther from the seaboard. In the Dakhin the introduction of the flint-lock weapon, owing to intercourse with the French and English, may have been somewhat earlier. At any rate, it is said that the 12 battalions of *Gārdī*, or infantry drilled and armed in imitation of the French sepoys, and commanded by Ibrāhīm Khān, Gārdī, at the battle of Pānīpat in January 1761, carried flint-lock muskets (*Husain Shāh*, fol. 34b). And, if we may trust Ashob's memory, writing 58 years after the event, the artillery soldiers taking part in the riot of 1141 H. (1729) at the Jāmi' Masjid in Dihli, were armed with flint-lock (*chaqmāqī*) muskets.

The matchlock barrels were covered with elaborate damascened (*koft-garī*) work, and the stocks adorned with embossed metal work or with various designs either in lacquer, or painting, or inlaying of different materials. The stocks were at times adorned with embossed and engraved mounts in gold, or the butt had an ivory or ebony cap. The barrel was generally attached to the stock by broad bands of metal or by wire of steel, brass, silver or gold. The broad bands were sometimes of perforated design and chased. The stocks were of one or other of two designs, 1) narrow, slightly sloped, of the same width throughout, or 2) strongly curved and very narrow at the grip, expanding to some breadth at the butt. When not in use, matchlocks were kept and carried about in covers made of scarlet or green broad-cloth.

*Pārah*. Rustam 'Alī, Bijnori, in his "History of the Rohelas" (in Urdu), fol. 22a, in speaking of the fight between Dondē Khān and Qutb-ud-dīn Khān, grandson of 'Azmatullah Khān, near Kīratpur in Rohilkhand, says; *banduq ke pārah chartē the*. Although this meaning is not in the dictionaries, I take *pārah* to be here the hammer of the matchlock. Platts 258, and Steingass 230, 246, among other meanings give those of "bolt of a lock or door" and "iron mace", either of which

could be easily enough extended into "hammer of a gun".

*The match.* The name of this was in Persian either *jāmāgī* (Steingass, 351), or *fahtah* (id. 935), in Hindi: *torā* (Shak. 702). According to Ashob, fol. 261b, to have the match ready and lighted was *fahtah shahsuwār namudan*.

*Powder horn et cetera.* These accoutrements were called collectively *kamr* (Egerton 83, N<sup>o</sup>. 143, 133, N<sup>o</sup> 653). The set consisted of a powder flask, bullet pouches, priming horn (*siṅgrā*), match-cord, flint and steel, the whole attached to a belt. This belt was often of velvet embroidered in gold. Ashob, fol. 226b, gives *shākh* as the word for powder horn. Steingass, 720, does not include this specific signification in the numerous meanings he gives; but Platts, "Hindustani Dictionary", 716, has *shākh-dahana*, a small powder flask for priming. Fitzclarence, 69, speaking in 1817 of some irregular horse in the Company's service, half of whom were armed with matchlocks, says "the receptacles which contained their powder and ball are unwieldy, and as they never make use of cartridges for their pieces, they are a long time in loading. Some of them have at least twenty yards of match about their person, similar in appearance to a large ball of pack-thread". Modern words, adopted from Europeans, were *tozdān* (pouch) and *kārtus* (cartridge). They are used by Khair-ud-dīn, 'Ibratnāmah, i, 422, when recounting René Madec's defeat in 1191 H. (1777) by Mullā Rahīm Dād Khān. The book itself was written after 1203 H. (1788).

*Blank Cartridge.* I find the expression *khālī-golī* used for blank cartridge by Rustam 'Alī, Bijnori, "History of the Rohelas" (in Urdu), fol. 17a: *Bataur jang-i-zargari khālī golī se apus men chalen*; "As in a goldsmith's quarrel (a collusive dispute), they fired blank cartridge at each other".

*Cailleteque.* This strange word is used by Anquetil Duperron, *Zend-Avesta*, I, xlv, when speaking of Sirāj-ud-Daulah's escort at Murshidābād (1757), and this word

he defines in his index "fusil à mèche, très long, que l'on tire ordinairement en le posant sur un pié fait en espèce de fourche". The etymology of the word baffled me for a long time, it being impossible, from his spelling, to reconstitute its original form. It is not French, as the variations in spelling sufficiently show. For instance, De la Flotte, i, 258, referring to the Coromandel coast, (where Anquetil also may have picked up the word), speaks of a very long and heavy matchlock, which he calls a *kaitoke* (evidently another phonetic rendering of "caillotoque"). Gentil also, 59, in describing the entry of Šalābat Jang's troops into Aurangābad on the 11<sup>th</sup> June 1753, mentions "fusils à mèche, qu'on appelle *kaitok*, couverts de drap rouge". René Madec (c. 1774) spells it *kayetoc* (E. Barbé, "Le Nubab René Madec", 54). For a time I thought it might be due to the use of *qandug*, gun-stock, as a name for the whole weapon, though I have never found in native writers any such use of that word. Or it might be a vulgar error for *bandug*, the ordinary word for a gun. Mr. H. Beveridge suggested to me *milteq*, a gun, as a probable derivation of the word (R. B. Shaw "Sketch of the Turki Language" J. A. S. B., 1878, p. 184). P. de Courteille, Diet. 506, fancies that this word *milteq* is itself a corruption of *bandug*. In the absence of anything more satisfactory, an explanation of *caillotoque* might be found in *qultug*, the armpit, (Shaw, 157, P. de Courteille 435), on the ground that a musket is often carried under the arm!

But long after I had given up the search, I came across a word for a gun or matchlock, which I am convinced must be the original of that used by the European writers quoted above. I found this word *qaidug* in my copy of the *Ahmad-nāmah* of 'Abd-ul-latif, a rhyming chronicle of Ahmad Shah's reign written at Lakhnau in 1184 H. (1770). The two passages are on ff. 15a and 15b, the first in the rubric and the second in the text; and they read as follows:



## Rubric.

*Dāstān dar bayān kih roze suwārī-i-Wazīr dar rāh  
mī-raft, o yake az mu'ānd dar kamīngāh nishistār, qaiduq,  
قیدق, bar u rāndah, az in mā'ni Wazīr k̄hiyāl-i-fāsīd badil  
az Shāh rasāndah, o derah-i-khūd az Dihlī berōn burdah,  
binyān-i-fasād rā ta'mir dād*

## Text

*Miyān-i-rah kase qābu giriftah  
Zadah quiduq [قیدق] barue u mīhustah,  
Ba qasd-ash garchah u dā'rah zad,  
Wa-le Ezad k̄hiyāl-ash sākhtah radd,  
Giriftand-ash kasān az zormandī,  
Kashān burdand urū ham chu bandī.*

I cannot find the word in any of the dictionaries, of which I have consulted a good many.

*Jazā'il* or *Jazā'ir*. This was the wall-piece or swivel gun, and it is doubtful whether it should come here, under fire arms carried by the combatant, or under artillery. In some respects it partook of the character of both. Steingass, 362, defines *jazā'il* as a large musket, wall-piece, swivel, a rifle used with a prong or rest. Egerton, 124, note to N<sup>o</sup>. 585 refers to *jazā'irs* in the Codrington collection which are 7 feet and 8 feet long; this would appear to be the usual length. Ashob, fol. 182*b*, describing the entrenchments of Muḥammad Shāh outside Karnāl (1151 H., Feb. 1739), twice speaks of something he calls a *pushtak*, which was put up (*andākhtak*) by the *jazā'il*-men. This is not the tripod, which is separately mentioned; probably it was a field shelter or slight entrenchment.

In connection with this weapon we come to *gingall*, a word used by European writers. Shakespear, 796, says it is H. a swivel &c, either a corruption of *jazā'il*, or from *janjāl*, trouble, difficulty; and Steingass, 373, has a word *janjāl*,

crowd, multitude. Yule and Burnell, 285, say that *janjāl* is "of uncertain origin". Their examples are Elphinstone (1818) and Shipp (1803—15). Fitzclarence (1818) also uses the word. *Janjāl* is used in a Hindi poem composed in Bundelkhand in the first half of the 18<sup>th</sup> century (Journal A. S. B., vol. XLVII, 1878, p. 369). I think that *jazāil* must be the origin of *janjāl* (gingall). Substitute, as an uneducated Indian would do, a "j" for the "z", and you have "jajā'il", then insert a nasal, far from an infrequent occurrence, and at once you have "janjā'il", or quickly pronounced, "janjāl". Q E D But whether gingall is derived from *jazāl* or not, these can be little doubt that both words are used in respect of one and the same kind of weapon, as witness Sir Hope Grant's description of the Chinese gingall (Life, II, 92) "This weapon is a species of long heavy duck-gun carrying a ball weighing about two pounds, its range is at least 1000 yards. It is placed upon a tripod, from which tolerable aim can be taken". Lake's remarks, *Sieges*, 70, note, show that a ginjal (as he spells it) was in his opinion the same thing as the *jazāir* or *jazāl* "Long matchlocks, of various calibres, used as wall-pieces by the natives of India, which are commonly fixed like swivels, and carry iron balls not exceeding a pound in weight. In the field, they are sometimes carried on the backs of camels". Fitzclarence, 245, says the ball of the Indian *jazāl* weighed two or more ounces. Jinjalls, or heavy matchlocks were, as writes captain Thomas Williamson, "Oriental Field Sports", 45, commonly appropriated to the defence of forts. They carried a ball from one to three ounces in weight; and having very substantial barrels, were too heavy to use without a rest. Many had an iron prong of about a foot in length, fixed on a pivot not far from the nozzle: and this placed on a wall, a bush, or the ground, served as a support. In the defence of mud forts, especially in Bundelkhand, the besieged exhibited extraordinary dexterity, rarely failing to hit their object either

in the head or near the heart, even at great distances. All fire arms used by Indians having small cylindrical chambers, and being mostly of a small bore, a wonderful impetus was imparted to the ball. The *juzzail* used by the Afghans in 1842 is described by Colonel Thomas Seaton, "From Cadet to Colonel"; i, 207

*Ghor-dāhan* was a kind of *jazzail* of which one thousand were made at Lāhor for Mu'īn ul-mulk between 1161 and 1167 H. (1748—1754), see the *Tal'ās namah* of Miskin, composed in 1196 H., fol. 36a. The allusion in the name seems to be to the everted or widened mouth of the barrel.

*Qidr*. The *Murāt-i-Ahmadī*, fol. 199a, in describing the battle outside Ahmadabad in 1143 H. (1730), between Abhai Singh, Rāhtor, and Sarbuland Khān, speaks of the horsemen with *qidr*, قدر, and matchlocks advancing to give battle. I cannot find what weapon this was. The nearest word I have found is قدر, *qidr*, a cauldron, pot, kettle, Steingass, 957; but this does not suggest an explanation. According to Erskine "History", ii, 294 (note), Osmanli troops lay great store by a kettle, which they carry into the field as other troops do their colours. But at Ahīmadābād neither side were Osmanlis.

### III. Pistols.

This weapon was the *tamanchah* or *tamānchah* (Steingass, 819, a sharp blow, a pistol). It does not appear in the list in the *Āīn*, an omission not to be wondered at when we remember that the *Āīn* was composed in 1596—7, while the pistol does not seem to have been known even in Europe much before 1544 (H. Wilkinson, *Engines of War*, 58). The pistol was in use in India, to some extent at any rate, early in the 18<sup>th</sup> century. For instance, it was with a shot from a pistol that in October 1720 a young Sayyad, related to Husain 'Alī Khān, killed that nobleman's assassin (Mīhīd Qāsīm, Lāhorī, 'Ibratnāmah).

Dowson (Ell., vii, 573) must here have read *nimchah* and translates a "short sword", but all the copies of the text that I have seen read *tamanchah*, i. e. a pistol. Probably the pistol was confined to the higher ranks of the nobles. Its rarity is shown by these being so few examples in the Indian Museum. Egerton's "Handbook" has only three entries, and one of these refers to a pair of English pattern, which must be quite modern. But Ashob, fol. 61*a*, writing in 1196 H. about the shoe-sellers' riot at the great mosque in Dihli in the year 1141 H. (11<sup>th</sup> March 1729), speaks of the soldiers taking part in it as having European *pistol* and *tabanchah*.

*Sherbachah*. This musketoon or blunderbuss (literally "tiger-cub") seems to have been of a still later introduction than the pistol. Egerton catalogues three examples only N<sup>o</sup>. 410 (p. 110), Nos 761—2 (p. 144). One is twenty inches long. Probably the weapon came into India with Nādir Shāh's army (1735) or that of Aḥmad Shāh, Abdālī, (1748—1761). In the last quarter of the 18<sup>th</sup> century there was a regiment of Persian horse in the Lakhnau service known as the *Sher-bachah*. Possibly they took their name from this weapon, with which they may have been armed. Or the name may have been due to their supposed ferocity and thirst for their enemies' blood. Dowson in *Elliot*, viii, 398, note 2, quoting from the *Akḥbār-ul-Muḥabbat*, speaks of ten thousand dismounted men in Aḥmad Shah, Abdālī's army in 1760 "having *sher-bachas* (pistols) of Kābul".

## CHAPTER X.

### ARTILLERY. — HEAVY GUNS.

The general name for this branch was *Top-khānah* (*top*, cannon, *khānah*, house, division). Every department connected with the artillery was included under the one name; it comprized, 1) a manufacturing department; 2) a magazine or ordnance department, in both of which the imperial Khānsamān, or Lord Steward, had the superior control over the Daroghah or Mir Ātash; 3) the field artillery in actual use; and 4) the guns in use in the fortresses. In these last two subdivisions the Mir Ātash seems to have been entirely independent of the Khānsamān.

The word *top*, the usual name for a cannon, is stated in Persian dictionaries to be of Turkish origin, but apparently Bābar used the word *ṣarb-zan* (literally, blow-striker). For this see Horn, 27, and his references, Pavet de Courteille, "Mémoires", ii, 168, '*arābah ustidakī ṣarbzan-lār*', "les coulevres qui étaient sur des chariots", id. ii, 336, *ṣarbzan-lik 'arābah-lār*, "des coulevres toutes montées sur leurs affûts", and Budāunī, ii, 194, line 6, *tā ṣarbzan-hā o zambūrahkū kih bālāe 'arābahhāe bud*, "to the cannon and swivel-pieces which were upon carts"<sup>1</sup>. I have not traced when the word *top* first appears in Indian writings, but probably it came into use first in the Dakhin and was introduced there by the officers from Rūm, that is, Turkey, who were employed in the artillery. The word *top*

<sup>1</sup> I have found *ṣarbzan* used by so late a writer as Kām Rāj (c. 1119 H.), see *Āẓam-ul-ḥarb*, fol. 120b, but then he has *top* and *rahkalah* in the same sentence.

is often restricted to the large cannon or siege guns; sometimes we find it used for all classes of cannon, with the distinction into large and small, *top-i-kalān* and *top-i-khurd*.

Bābar seems to have had in use pieces of considerable size (Horn, 26). In his memoirs (P. de C., ii, 253) he describes the founding of a cannon at Āgrah under the direction of his head of the artillery, Ustād Qulī Khān. "Around the mould they had erected eight furnaces for melting the metal. From the foot of each started a channel which ended in the mould. As soon as I had arrived, the holes to allow the flow of metal were opened. The fused metal rushed into the mould like boiling water. After a time, before the mould was full, the fused metal from the furnaces began to flow very slowly, either because their size or the amount of material had been wrongly calculated, Ustād Qulī Khān, in a state that cannot be described; wished to fling himself into the very midst of the melted copper. I made much of him, ordered him a robe of honour, and thus succeeded in calming him. A day or two afterwards, when the mould had cooled down, it was opened. Ustād Qulī Khān, overwhelmed with joy, sent me word that the bore (*āme*) of the piece had no fault and that a chamber could easily be made in it. The body of the cannon was then uncovered and a certain number of artificers were set to finish it, while he busied himself with the preparation of the chamber". From ii, 269, it seems that this chamber was cast separately, and the gun was then tried, and fired a ball for a distance of sixteen hundred paces. On another occasion, ii, 324, a large cannon was fired, the ball went far, but the piece burst and eight men were killed<sup>1</sup>. At a much later period the art of founding could not have greatly advanced, for we find that De la

<sup>1</sup> The passage in ii, 336, does not necessarily refer to large guns, and Muṭafā, the other artillery officer, is spoken of as using small field pieces (culverines).

Flotte, i, 258, speaking of the 18<sup>th</sup> century and the Dakhin, asserts that Indian cannon were not founded, but built up of iron bars bound together, and held in place from distance to distance by thick rings of the same metal. Again Anquetil Duperron, "Zend Avesta", I, xlv, speaking of the force commanded in 1757 by Rajah Dulab Rām one of Nawāb Sirāj-ud-daulah's officers, says "l'artillerie consista en gros "canons faits de bandes de fer battu". Writing much later, in 1818, Fitzclarence, 255 says "The artillery in use among the natives is generally an iron cylinder with molten brass cast round it". Elsewhere, 251, he remarks that in their first attempts to make cannon the Indians employed bars of iron hooped together. In one instance he saw an improvement on this. It was at Dihli that he found a piece made of iron wedges placed as radii, and then hooped together so as to form the gun.

Horn, 28, quoting from Mīrzā Ḥaidar (Elliot v, 131, 132) says that at the battle of Kanauj in 1540 Humāyun had 700 pieces (*ṣarbzan*) drawn each by four pairs of bullocks (these guns fired balls of 4 lb., 304 gr. each). In addition to these were twenty-one heavy guns requiring each eight pairs of oxen, and firing leaden balls ten times as heavy as the others. Erskine, "History", ii, 186, using the same passage from Mīrzā Ḥaidar, reads "sixty-one (شست و یک) heavy guns, each drawn by sixty (شست) pairs of bullocks". Ross, "Tarikh-i-Rashidi", 474, has "twenty one (دبست و یک) carriages each drawn by eight (هشت) pairs of bullocks". Looking to the state of things then existing, I think the number of *twenty one* is preferable to Erskine's *sixty-one* heavy guns; but on the other hand the larger number of bullocks (*sixty* and not *eight* pairs) is the more probably correct; the ball thrown being ten times as heavy as that of the smaller pieces, the gun itself must have weighed more, in something like the same proportion, and would have required more than twice as many bullocks to drag it.

Dr. Horn, 29, holds that under Akbar the artillery

reached the highest point of efficiency which it ever attained during the existence of the Moghul empire. But judging from the brief account of cannon in the *Am-i-Akbari*, one would surmise that this arm was little, if at all, developed. A great deal is said about matchlocks, but comparatively little about other *bouches à feu*. It would be, I think, a safer opinion to hold that the artillery was much more perfect and numerous in 'Ālamgīr's reign, than it was under his great-grandfather, Akbar. The long campaign in the Dakhin and the innumerable sieges, some of considerable importance, such as those of Bijāpur and Jinjī, must have brought the uses of artillery into much greater prominence. And during the 18<sup>th</sup> century something, if not much, was learned from the example of the French and English armies, and from the European adventurers, who found their way in considerable numbers into the armies of the native powers. As an instance of the hazardous conclusions that are occasionally arrived at, I may quote the suggestion of Mr. D. Mac Ritchie, "Gypsies of India", p. 207, that the gypsies (whom he identifies with the Jāts) brought the use of artillery into Europe. The history of the arm in India seems to prove on the contrary, that it was introduced there from Europe.

European observers in the 18<sup>th</sup> century do not, as a rule, speak favourably of the Moghul artillery. For instance, with reference to the Nawab of the Karnātak's army in 1746, Orme, "Mil. Trans." i, 74, says "Having never experienced the effect of field pieces, they had no conception that it was possible to fire with execution the same piece of cannon five or six times in a minute; for in the awkward management of their own clumsy artillery, they think they do well if they fire once in a quarter of an hour". Even seventy years later, in 1815, the Nizām's artillery were still content to fire once every fifteen minutes; and on one occasion they were indebted for final success to the freak of some European soldiers, who came at night



from their own camp, and fired the guns so fast as to frighten the besieged into evacuating the place before the morning (Lake, 15, note). Cambridge, who wrote about 1760, "War", Introduction, ix, is more general in his condemnation. "Nothing is so ruinous to their military affairs as the false notion which is generally entertained by them, and chiefly by their commanders, in relation to artillery. They are terrified with that of the enemy, and foolishly put a confidence in their own, and what is the most fatal mistake, they place their chief dependence on the largest pieces, which they know neither how to manage or to move. They give them pompous and sounding names, as the Italians do their guns, and have some pieces which carry a ball of seventy pounds. When we march round them with our light field pieces, and make it necessary to move those enormous weights, their bullocks, which are at best very untractable, are quite ungovernable, and at the same time are so ill-harnessed, that it causes no small delay to free the rest from any one that shall happen to be unruly or slain". Again, take what Mustapha says, *Serr*, i, 443, note 19, "Expressions about a well-served artillery are misleading, for it is certain that all their artillery was as cumbrous, ill-mounted and ill-served as was the artillery of Europe three hundred years ago. It is only since the year 1760 that some Indians have put themselves upon the footing of having an artillery mounted and served *nearly* in the European manner'. And writing at Agra in 1768 or 1769, an anonymous observer (Orme Mss. p. 4311) remarks on the Jāts taking two 24-pounders a mile or two in ten days, and scornfully adds "Telle est l'adresse de la plupart des Indiens dans le métier de la guerre après qu'ils ont reçu tant de leçons des Européens, dont ils auraient dû profiter. Mais on a beau leur apprendre!"

The following account of Mahratta ways in 1791 may be taken as applicable to the Moghul artillery of the same period. "A gun is loaded, and the whole people in the

battery sit down, talk and smoke for half an hour, when it is fired, and if it knocks up a great dust, it is thought sufficient: it is re-loaded and the parties resume their smoking and conversation. During two hours in the middle of the day, generally from one to three, a gun is seldom fired on either side, that time being, as it would appear, by mutual consent set apart for meals. In the night the fire from guns is slackened but musquetry is increased on both sides" (E. Moor, "Narrative", 30). Colonel Hector Munro, the victor of Baksar, speaking of the period 1763—1772, held that the Indian princes got their artillery from England, Holland and France. "There is hardly a ship that comes to India that does not sell them cannon and small arms; the most of the gunpowder they make themselves. They cast shot in abundance, but there is no black prince that casts cannon but the king of Travancore (Travancore). The cannon and military stores are smuggled into the country" (Carraccioli, "Life of Clive" iii, 276, and "Minutes of Select Committee, H. C.", sitting of 14<sup>th</sup> May 1772).

### Heavy Guns.

The Moghuls were very fond of large ordnance, but such pieces were really more for show than use; and as Fitzclarence truly says, 243, the oriental idea seems to have been "to render this destructive engine from its size more powerful than those of the Western world". In this direction they proceeded even to extravagant lengths. These huge guns made more noise than they did harm; they could not be fired many times in a day, and were very liable to burst and destroy the men in charge.

*Names.* The large guns were all dignified with pompons names, just as elephants were, such names as *Ghāzi Khān* "Lord Champion", *Sher Dahān* "Tiger-mouth", *Dhumdhām* "The Noisy", (Shiu Das, 29a) *Kishwar kushā* "World-opener", *Gark-bhanjan* "Fort Demolisher", *Fath-i-Lashkar* "Army Conqueror", (Elliot, vii, 100) *Aurangbār* "Strength

of the Throne", *Burj Shikan* "Bastion Breaker", (Catrou, 256) *Jahān kushā* "World Conqueror" (Horn, 37) and so forth. At the battle of Musainpur in 1133 H. (Nov 1720) there were present *Sher dahān* (Tiger mouth), *Ḥāzī Khān* (Lord Champion), *Ālam-sitān* (World-seizer), *Ātash-dahān* (Fire mouth), *Khushlāl-Chand*, Berlin Ms. N<sup>o</sup>. 495, fol. 1015a. In addition to a name they were also usually provided with an inscription, sometimes in verse, stating the name of the founder, the place and the year of manufacture.

From Bernier, 217, 218, 352, we learn that early in 'Ālamgīr's reign there were in the field with the emperor seventy pieces of heavy artillery, mostly of brass. These and the camel guns did not always follow the emperor, when he diverged from the high road to hunt, or to keep near a river or other water. Heavy guns could not move along difficult passes or cross the bridges of boats thrown over rivers. Many of these seventy pieces were so ponderous that twenty yoke of oxen were necessary to draw them along; and when the road was steep or rugged, they required the aid of elephants, in addition to the oxen, to push the carriage wheels with their heads and trunks.

These heavy pieces had frequently to be left behind, from the impossibility of their keeping up with the army. Thus A'zam Shāh, when he marched in 1707 from Ahmadnagar to Dholpur, left all his heavy guns behind at various stages of his march, and had none left when he reached the battle field at Jājau (Kāmraj, *A'zam-ul-ḥarb*, fol. 19). Then in Šafar 1125 H. (March 1712), during the contest for the throne between the sons of Bahādur Shāh, three of the very largest guns were removed from the fort of Lāhor, each being dragged by 250 oxen, aided by five or six elephants, and it was ten days before the camp was reached, although it was not more than three or four miles distant (B.M. N<sup>o</sup>. 1690, fol. 157b).

In 1128 H. (1715-6) when Rajah Jai Singh was besieging Churāman Jāt in his fort of Thūn, one of these

cannon was sent from Dihlī. It was escorted with ceremony from Palwal to Hodāl and there made over to the deputy-governor of Āgrah for conveyance to its destination. The shot it threw was, we are told, one maund (Shāhjahānī) in weight (Shiū Dās, fol. 13*a*). Again, at the siege of Āgrah in 1131 n. (July, August 1719), several of these large cannon were employed. They had there Ghūzī Khān, Sher Duhān, Dhumdhām, and others. These guns took shot of from 60 to 100 lbs. (30 *seers* to 1 *man* Shāhjahānī). Attached to each gun were from one to four elephants and from 600 to 1700 draught oxen (Shiū Dās, fol. 29*a*). Muḥammad Muḥsin also speaks of Muḥammad Shāh having at Karnāl in 1151 n. (Feb. 1739), guns which required five hundred to one thousand bullocks, aided by five to ten elephants (Horn, 34, quoting Elliot, viii, 74).

When the Jāt rajah of Bhartpur besieged his relation in Wer, about 30 to 40 miles south of Bhartpur, his biggest cannon, a 48 pounder, was sent from his capital. It was a piece that Sūraj Mall had taken from the Mah-rattas, and they had carried away from Dihlī. Although dragged by 500 pair of oxen, with four elephants to push behind, it occupied them a month to convey the gun about half way, some eighteen or nineteen miles altogether, and there it stuck. It should be noted, however, that this was in the rainy season, which added immensely to the difficulty. The writer from whom I obtain these facts adds "This may look strange, but you do not know the weight of these guns or the kind of gun-carriage used. At the very time I write this (c. 1767), it is ten days since they brought out two 24-pounders from the fortress of Āgrah, each drawn by fifty pair of bullocks and helped by an elephant. Yet at this moment they are not outside the town of Āgrah, though they are moving each day from dawn to night-fall (Orme Mss. p. 4341). In 1826 there were still large guns at Wer. Colonel Seaton in his "From Cadet to Colonel", i, 177, says "we found some enormous iron

guns built up something in the style of our present Armstrongs, with this difference that over the inner core of longitudinal bars forming the bore, iron hoops and not coils, were shrunk on; over which came a layer of longitudinal bars, and outside these another layer of hoops shrunk on. The diameter of these guns at the muzzle was enormous, something like three feet, but the bore was small. I should suppose they were about 40-pounders. I don't think any amount of powder would have burst them".

*Mode of Mounting Heavy Guns.* From the slow progress that was made in the transporting of these heavy guns, it may be inferred that the carriages on which they were mounted, were of a very clumsy and primitive construction. One is almost inclined to believe that they must have been dragged unmounted along the ground, by mere brute force. Otherwise the length of time occupied in going a mile seems hardly credible.

Most probably throughout the 18<sup>th</sup> century these guns were mounted on low platforms, and were made to turn on a pivot, such carriages as in 1803 Thorn, "War", 190, called "country block carriages, turning on a large pivot". Fitzclarence, 216, says the generality of the artillery in the forts was so badly mounted that they would be dismounted at the first discharge.

The clearest account of the way in which they mounted their heavy artillery in the field is to be found in Orme, "Mil. Trans.", ii, 173, when describing Sirāj-ud-daulah's guns at the battle of Palāsi (Plassey) in 1757: "The cannon were mostly of the largest calibres, 24 and 32 pounders; and these were mounted on the middle of a large stage, raised six feet from the ground, carrying besides the cannon, all the ammunition belonging to it, and the gunners themselves who managed the cannon, on the stage itself. These machines were drawn by 40 or 50 yoke of white oxen, of the largest size, bred in the country of Purnea; and behind each cannon walked an elephant, trained to assist

at difficult tugs, by shoving with his forehead against the hinder part of the carriage". Sir Eyre Coote, "Minutes of Select Committee H. C.", 30<sup>th</sup> April 1772, says that the Nawāb's cannon were "mounted on bundles of bamboos tied together and each piece drawn by 20 or 30 pairs of oxen". On the other hand, Major Munro, "Minutes", 14<sup>th</sup> May 1772, deposed that the 133 pieces of different sizes taken from Shujā'ud-daulah at Baksar (28<sup>rd</sup> Oct. 1764) were all on carriages and most of them on *English* carriages.

The Mahratta artillery in the Dakhin, so late as 1791, was still mounted on the old plan, copied from that of the Moghuls. "His (Paras Rām Bhāo's) largest guns were brass 32 and 42 pounders cast at Poona, in length far exceeding ours: the wheels of the carriage as well as the carriages themselves, were exceedingly clumsy, particularly the lumber wheels, which are generally of one piece, very low, and in a heavy road do not perhaps turn once in the distance of a hundred yards. The gun is so heaped with baggage of every description that it could not be cleared ready to fire under at least half an hour; nor could any one from its appearance in its travelling state, were it not for the number of bullocks dragging it, conceive it to be a gun: fifty, sixty and sometimes one hundred couple of bullocks drag one of these guns; and in very heavy roads, where the cattle have been hard worked and ill-fed, an elephant is posted to the rear who pushes with his head over difficult passages. Although the improvement of having four bullocks abreast was lately adopted by the Mahrattas, there surely can be no utility in having such a string of cattle as they sometimes tack to one of these strange pieces of ordnance" (E. Moor, "Narrative, 78"). In the Dakhin we found it necessary to employ sixty Carnatic bullocks in yoke to an iron 24 pounder, fifty to an iron 18 pounder, and forty to an iron 12 pounder (Blacker, "War", 283).

One observer, De la Flotte, who was in the south of

India from April 1758 to May 1760, declares that Indian cannon, when used in fortresses, were not mounted on carriages: "they are put on the very embrasure, or they are supported by two great movable timbers (*poutres*). The balls are of stone, they make many ricochets and then roll a great distance". M. de la Flotte saw at Jinjī, the well-known fortress 82 miles s.w. of Madras, one of these pieces, which was twenty feet in length. At Arkāt (Arcot) in 1746 Clive seems to have fired a big native gun from a mound of earth, without having any carriage (Orme, i, 191, referred to by Horn, 34). Colonel M. Wilks also speaks of an occasion in 1768 when the guns of the Indians were numerous "but unmounted". In Northern India, however, some sort of carriage seems to have been used even for heavy guns, when they were employed in the defence of a fortress.

*Descriptions of individual guns.* Dr. Horn, 36, quoting Captain Showers (J.A.S.B., XVI, 589) gives as the exact dimensions of one of Shahjahān's cannon, then (1847) to be found at Murshidābād,

Extreme Length . . . .	17 feet.
Deph of Bore . . . .	15 „
Diameter at Muzzle . . .	1 „
Diameter of Bore . . . .	6 inches.

This cannon, *Jahān Kushā*, the world conqueror, bore a poetical inscription of eight distiches, to which were added the facts that it was made at Dhākah in Jamādī ii of the eleventh year of Shāhjahān (Oct. Nov. 1637), and that it took a charge of 28 sirs of powder. It had been made by the method of welding.

When Darā Shukoh was sent against Qandahār in Shāh-jahan's reign, he cast two great guns at Lāhor, which threw a ball of 1 man 5 sirs (about 90 lbs. English). Their names were *Fath Mubārīk* (Blessed Victory) and *Kishwar Kushāe* (World Overcomer). He had with him two other

heavy guns, the *Qila' h-kushāe* (Fort Overcomer) from Dihlī and *Maryam* (Mary?) from Shāl (Raverty, "Notes on Afghanistan", 22, relying on the *Latāif-ul-Akhhbār* of Rashīd Khān).

One of these large guns was to be found at Ahmadnagar in the Dakhin Fitzclarence, 243, says it was about 25 feet long, and it was said to have carried shot into Sir Arthur Wellesley's camp in 1803 "though it was pitched out of range of all reasonable weapons". It was, perhaps, the same as the *malik-i-maidān*, (King of the Battle-field), described by Horn, 132, quoting Meadows Taylor and J. Fergusson's "Architecture of Beejcepore", which is declared by those writers to be the largest piece of ordnance in the world. The metal is an alloy of 80.427 parts of copper to 19.573 parts of tin. The dimensions are

Diameter at the Breech . . . . .	4 feet, 10 inches.
Diameter at the Muzzle . . . . .	5    ,    5    "
Diameter of Bore . . . . .	2    "    41    "
Length . . . . .	14    "    3    "

In the "Life and Correspondence of the Right Honble Sir Bartle Frere", i, 56, there is a drawing by him of two large guns that he saw at Bijāpur in 1848. One was on the Upari-burj (upper bastion?); the other he calls *Muluk Juft*. Neither of them was mounted on a carriage.

The gun *Malik-i-maidān* was cast at Ahmadnagar in 1548, during the reign of Burhān Nizām Shāh i, by a Turk named Muḥammad, son of Ḥasan. It was first described by E. Moor, "Narrative", 322, who believed it to have been cast by Ālaungir in 1097 H (1685), but the copy of the inscription as given by him, does not bear this out, for it commemorates the capture of Bijāpur in that year, and not the casting of the gun. Moor was told that there were twelve large guns; of these he saw three, two being not cast, like the *Malik-i-maidān*, but made of welded bars hooped round. One of them was called *Lam-*



*chharri*, which Moor translates "the far-flyer" (perhaps from *lamchhar* (Shak. 1795), a long musket, *lamchharā*, adj. tall).

There were also two guns twenty five feet long at Nāgpur (Fitzclarence, 108, 244), called by the English Gog and Magog, which were "finer pieces and better proportioned than the one at Ahmadnagar". Fitzclarence also saw, 216, a heavy brass gun mounted on a sort of tower at Daulat-ābād, and though he did not measure it, he supposed it equal to throwing a ball of sixty pounds. There was also a 24-pounder (id 215) on a peak at the top, said to have been raised to that position by a European in 'Ālamgir's reign. At Dihlī, opposite the Lāhor gate, he also saw in 1817 a gun of a very large bore.

Fitzclarence also describes the "great gun of Agra" as Major Thorn calls it, "War", 188. "At Agra I have seen a gun more like an immense howitzer, above 14 feet long, 22½ inches in the bore, into which persons can get: the following is a table of its dimensions".

TABLE OF DIMENSIONS

NATURE.	WEIGHT		DIAMETER OF THE					LENGTH OF THE			WEIGHT OF THE SHOT OF IRON	WEIGHT OF THE SHOT OF MARBLE.
			Calbre	Chamber.	Muzzle	Trunnion	Base Ring	Chamber	Chase including the chamber.	Piece		
1500 lbs.	cwt.	gra. lbs.	In.	In.	In.	In.	In.	In.	In.	In.	lbs.	lbs.
Brass	10	49 1 4	22.5	10 8	16.5	11.3	48 6	51	159	169.5	1497.39	567

Weight in maunds, 1469.

Value of the gun, as old brass, in sonaut (*sanwāl*) rupees 53,400; but if serviceable it may be estimated at one lac and sixty thousand.

"This gun was once supposed to contain much gold; and

even as old brass it is valued at £ 7000; but if serviceable, it may be estimated at about £ 18,000. It at present (1818) lies near the bank of the Jumnah, outside the wall of the fort. An attempt was made to transport it down to Calcutta". Both Fitzclarence and Thorn give drawings of the gun. Thorn, 189, says "General Lake had a great desire to remove this trophy from Agra to Calcutta, with a view to transporting it ultimately to England; but though a raft was prepared for its conveyance upon the Jamnah, the stupendous body of metal proved too heavy for the framework, and the whole sank in the bed of the river, where the gun lay buried in the sand when I (Major Thorn) last saw it".

At Āgrah in 1803 Lord Lake also obtained a fine 72-pounder of the same composition as the "great gun", together with 76 brass guns and 86 iron ones of different kinds, such as mortars, howitzers, carronades, and gallopers, with thirty-three tumbrils. The brass gnns were in geueal of the same manufacture and construction as those taken at Dihh, and in the camp and town (Āgrah) several of the iron ones were of that description called bar guns, and the whole were mounted either on travelling carriages with elevating screws, or on country block carriages turning on a large pivot (Thorn, 190).

There are some large guns of the Moghul period at Lāhor. There is the *Zamzamah* (The Thunderer), one of two cast by a man named Shāhī Nazīr, by order of Shāh Walī Khān, prime minister of Ahwād Shāh, Abdālī, (1747 - 1773). It is of brass and was used, so Muhammad Latif says, at the battle of Panīpat in 1761, though this is inconsistent with the *tārīkh* it bears (1179 H. or 1765/6). The fellow gun was lost in the Chināb river; and this one was removed by the Sikh leader, Har Singh, Bhangī, from the village of Khwajah Sa'īd, two miles from Lāhor, where the Abdālī had his arsenal. It bears an inscription of twenty-two lines, of which the last two are:

*Ba'd taslim ba guftā: "Tōp .*

*Paikar-i-azhdahāe, ālash-bāz".* (1179 i. e. 1765/6).

"After obeisance he exclaimed 'The dragon shaped, fire-vomiting, cannon'." Its length is 14 feet 4½ inches and the diameter of the bore is 9½ inches. There is also at Lāhor another large gun made in 1182 H. (1768--9) by Shujā'at Khān, Ṣafdar Jang, a governor of Multān; it bears the name of *Kohshikan* (The Mountain Destroyer) and weighs 110 maunds (Syad Muhammad Latif, "Lāhor", p. 386).

Moor, "Narrative", 420, refers to descriptions of large guns by Dow, "History of Hindostan", ii, 278 (a reference which I cannot trace in my edition) and by Rennell, "Memoir", 61. The two referred to by Dow were at Arcot and Dacca. Rennell measured the second of these, but before the end of the 18th century, it and the bank on which it rested had fallen into the river. The weight of an iron shot for it was 465 pounds, and Moor calculates the weight of one for *Malik-i-mardān* to be 2646½ pounds.

Sixty eight guns were taken by Lord Lake outside Dihli on the 16th Sept. 1803 (Thorn, 117). They were of different sorts, the whole mounted on field carriages with limbers and traces complete. The iron guns were of European manufacture: but the brass guns, mortars, and howitzers had been cast in India, with the exception of one Portuguese three-pounder. Some were made at Mathurā and others at Ujjain, but evidently from the design and execution of a European artist. The dimensions in general were those of the French, and the workmanship highly finished. The guns had belonged to the disciplined troops of Sendhiah, and the above description abundantly shows that they were not strictly *Moghul* weapons at all, but an equipment prepared under the supervision of Europeans in the native service.

A somewhat later account (1809) of Sendhiah's artillery is found in Broughton, 109. Sendhiah then had 66 guns,